

EFFECT OF INSTRUCTIONAL DESIGN UTILIZATION ON  
ACHIEVEMENT AMONG BUSINESS MANAGEMENT  
AND OWNERSHIP STUDENTS IN OKLAHOMA

By

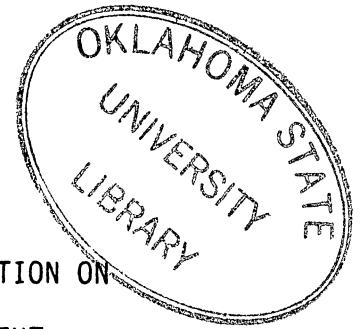
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## PREFACE AND ACKNOWLEDGEMENTS

A pretest/posttest quasi-experimental research study was conducted to determine the effect of instructional design utilization on achievement among DE/Marketing students in Oklahoma during the 1984 - 1985 school year. Development of the research instrument was based upon an analysis of critical and essential tasks performed by supervisory managers in a variety of retail setting throughout the state.

Subjects were identified as seniors enrolled in Business Management and Ownership classes; each had completed the first year of DE/Marketing as juniors in secondary educational programs. Students were separated into two groups, based upon instructional design used in their programs. A panel of experts was used to determine which programs utilized the Oklahoma Curriculum and Instructional Materials Center design, and which programs utilized other instructional systems.

Test scores were analyzed for change over time between the pretest and posttest, and by instructional design to determine if there was a difference in scores between students taught under the Oklahoma system, and for those taught under other instructional designs. Results were analyzed by total score, and by sections of the test.

I wish to express my sincere thanks to all of the people who assisted me throughout the development of this work. I am especially grateful to members of my committee: Dr. Linda Vincent, Chairperson; Dr. Jerry Davis, Advisor; Dr. Ken St. Clair; Dr. John Tate; and, Dr. Bill Hodges. Special thanks also go to Dr. Bill Warde, Dr. Jim Key, and

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## CHAPTER I

### INTRODUCTION

The Constitution of the United States of America contains no specific provision for education; yet each citizen's right to a free, public education has been implied in the First, Tenth, and the Fourteenth Amendments (Morphet, Johns, and Reller, 1974).

Though we must make enormous concessions to individual differences in aptitude, we may properly expect that every form of education be such as to stretch the individual to the utmost of his potentialities (Gardner, 1961, p. 86).

According to Rabalais (1983), that excellence is based on eight components: instruction, diversity in curriculum, testing and counseling, faculty selection, faculty development, instructional systems, learning resources systems, and continuing performance appraisal. As with other educational entities, vocational education is concerned with this thing called excellence (Tuttle, 1984).

To provide some level of consistency in training in vocational programs across the state of Oklahoma, the State Department of Vocational and Technical Education (SDVTE) has developed materials for each of its instructional program areas. The development of instructional materials is seen as one way to promote excellence in vocational training throughout the state (Tuttle, 1984). To date, instructional materials have been developed for all major program areas within the vocational education system provided throughout the state. These materials take months, even years to produce, and cost taxpayers thousands of dollars annually

(Patton, 1982). Although much of the cost is returned through the sale of materials, the costs of initial development, printing, and warehousing are causing the SDVTE to set its price at a level where members of the Oklahoma Council of Local Administrators (OCLA) are beginning to voice concern that they can no longer afford to purchase materials each year (OCLA, 1983). In addition, no evidence has been provided which shows the use of the SDVTE instructional materials produces higher levels of learning in Business Management and Ownership students (Frazier, 1983).

#### Statement of the Problem

Because of the concern over the cost of instructional materials developed by the Oklahoma SDVTE Curriculum and Instructional Materials Center, directors in comprehensive high schools and area school administrators are looking for alternative less expensive, yet effective, textbooks for their programs. In addition to the cost issues, many administrators tend to believe that it makes little difference which instructional materials a program uses: those developed by the state or through commercial publishing companies--that the teacher, not the materials, makes the difference. With recent demands being placed on education to improve training of students in the most efficient manner possible, questions of materials selection and cost are important. However, perhaps even more critical for all of vocational education, is the question of effectiveness of instructional design. Currently, there is a lack of information and specific analysis of data related to the effect of instructional design utilization on achievement in vocational programs in Oklahoma. Such data may provide information upon which administrators and teachers may be able to make improved decisions on selection of instruction materials for use in their programs.

### Purpose of the Study

The purpose of this study was to determine if there was a difference in competency achievement test scores for students who were enrolled in the Business Management and Ownership level of DE/Marketing programs where the Oklahoma instructional system was used, instead of independent instructional design systems.

### Hypothesis

The statistical hypothesis for this study was the null hypothesis generated from research questions. The hypothesis was that there was no difference between competency achievement test scores for students completing their second year of retail supervisory management training in the DE/Marketing program under the Oklahoma instructional system and for students completing their second year of retail supervisory management training under independent instructional design systems.

### Research Questions

Three research questions were developed within this study. The research questions identified were:

1. Was there a difference between pretest and posttest scores among all students used in the study?
2. Was there a difference in scores over time between students taught under the Oklahoma instructional design and for those taught under the independent design system?
3. Was there a change in scores over time between administration of the pretest and posttest among students taught under either instructional design?

### Limitations of the Study

The nonequivalent control group design utilized in this study was a quasi-experimental design (Gay, 1976). Because students tested were not randomly assigned to groups, the study encountered limitations related to generalization of findings. Also, because at the time the posttest was administered, students had approximately nine weeks of instruction to complete before graduation, some of the information covered in the test may not have yet been discussed in all programs. This was seen as a limitation since no specified sequence of instruction is mandated and the test, therefore, could not be amended to reflect instructional time remaining.

### Assumptions

The following assumptions existed throughout this study:

- (1) All students enrolled in Business Management and Ownership classes had satisfactorily completed DE/Marketing as a prerequisite class;
- (2) Instruction in Business Management and Ownership classes was based upon an occupational analysis of retail supervisory management tasks;
- (3) Teachers were not biased in instructing classes, regardless of the delivery system utilized in teaching Business Management and Ownership classes;
- (4) All teachers possessed the same basic competencies for teaching Business Management and Ownership classes;
- (5) All teachers followed prescribed guidelines for administering the test instrument used in this study; and,
- (6) Materials developed by the Oklahoma Curriculum and Instructional Materials Center may have been used as a resource in programs which were not considered as having fully implemented the Oklahoma instructional delivery system.

## Definition of Terms

Because of vast differences in terminology used throughout the field of vocational education, it is necessary to explain certain terms used within this study. Understanding of the following terms and definitions should assist in providing continuity of readership throughout the body of this report. For purposes of this study, the terms and definitions are:

Business Management and Ownership--The second (senior) year of comprehensive DE/Marketing programs which emphasizes training in supervisory management and private ownership of retail-oriented businesses.

Competency Achievement Test--An instrument used to predict an individual's ability to perform specific occupational skills to standards established by industry.

Competency-Based Vocational Education--An instructional design directed at the mastery of skills in specific occupational areas used to train job-ready employees who are prepared to immediately assume positions in the workforce upon completion of vocational training programs.

Distributive Education and Marketing (DE/Marketing)--A vocational education program which emphasizes training in retailing, marketing, merchandising and management; also, the official name given to the first (junior) year of comprehensive distributive education and marketing programs in Oklahoma. (NOTE: Distributive education and marketing is also referred to as marketing and distributive education, and as marketing education.)

Independent Instructional Design--Any of a group of unique instructional systems created by local classroom teachers to meet the particular needs of their students; usually comprised of elements from several related models including various reading materials and workbook activities,

individualized learning activity packages, lectures, and teacher-developed tests and assignment sheets.

Interstate Distributive Education Curriculum Consortium (IDECC)--

An independent association of member states whose primary objective is to develop materials for DE/Marketing programs; documents include task lists, learning activity packages, test items, and teaching resource materials.

Oklahoma Occupational Testing Advisory Council (OOTAC)--Group of individuals from industry and education who possess expertise in vocational training and testing and who provide information for the operation of the SDVTE Testing Section.

Oklahoma Instructional Design--A delivery system designed to improve instruction in vocational programs through the use of teacher and student curriculum guides, developed by the Oklahoma Curriculum and Instructional Materials Center in at least 80 percent of the primary duties covered in the vocational training program. Under this system, each student is provided a copy of appropriate student materials, and those materials serve as the primary reference volume throughout the training period.

Primary Instructional Materials--Books, curriculum guides, learning activity packages, and other printed matter provided to every student in a program, and upon which daily instructional activities are centered.

Textbook--Any volume used in classes as a basis for instruction, including books and curriculum guides.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

To supply this nation's labor force with individuals to work in those businesses within its channels of distribution, the field of vocational education began training in distributive occupations as early as 1938, when federal dollars were first made available through the George-Dean Act (Calhoun and Finch, 1976). DE/Marketing is a two-year program which trains for occupations from stock clerk to supervisory manager and store owner. The program of instruction is "designed around the discipline of marketing and designed for students planning to pursue careers in the marketing sector" (Hutt and Hocken, 1981, p. 27). It should also:

...assist in the improvement of marketing techniques, and build understandings of the wide range of social and economic responsibilities which accompany the right to engage in marketing businesses in a free enterprise system (Samson, 1980, p. 3).

In his report during a distributive education and marketing issues conference in Vail, Colorado, Samson (1980, p. 3) went on to say that DE/Marketing must develop competent workers.

#### Competency-Based Education

The issue of competence is one which appears throughout the literature. Webster (1973) defined competent as being able to do something. To determine what DE/Marketing students should be able to do upon

completion of the training program, task analyses have become topics of several recent research projects (Burrow and Burns, 1981, p. 13).

Indeed, most authors agreed that "the content of the curriculum must be up-to-date and relevant for the occupations that students will follow" (Klaurens, 1981, p. 3). Because of the fact that DE/Marketing includes over 20 instructional areas (Hutt and Hocken, 1981), however, and is taught in schools and communities of various sizes, some feel that the use of a common curriculum is not practical (Ashmun, 1982). Gleason (1983, p. 1) wrote that it is unfortunate, however, when:

...the curriculum focus in many programs has been diluted to the point that one might question their being labeled marketing and distributive education...The curriculum is, in many programs, badly in need of revision and redirection.

If that revision is to be effective, it must follow the directions taking place in industry today (Klaurens, 1981). Use of task analyses is the approach by which authors have tried to identify industry activities (Ertel, 1966). Not all programs utilize the task analysis approach, however, (Gleason, 1982).

One method to resolve these conflicting opinions was provided by Eggland (1983), who encouraged the use of competency-based instructional designs which allow creativity, flexibility, and are responsive to individual differences. At the same time, competency-based models are effective in teaching specific objectives, necessary to train competent workers (Klaurens, 1981). The National Commission on Excellence in Education (1983) also encouraged the use of instructional materials that reflect those activities necessary for training competent workers for industry.



## Related Studies

Task analysis research has been a part of the development of distributive education and marketing since its inception, and that research has had a direct impact on the curriculum used within the formal education program (Burrow and Burns, 1981). Application of the research was noted most readily through extensive use of task analyses in the development of instructional materials (Crawford, 1967). It was also found as a common element in the overall design of many curriculum processes, including the Interstate Distributive Education Curriculum Consortium (1980), the Oklahoma Curriculum and Instructional Materials Center (Patton, 1982) and several other instructional designs.

Although task analysis research has been widely used in developing instructional materials and curriculum models, follow-up studies on the effectiveness of those instructional materials was noted as a weakness in current distributive education and marketing research activities (Burrow and Burns, 1981). That weakness was more clearly described when Burrow and Burns (1981, p. 15) stated that:

The research of instructional practice most often relied on opinion and attitude surveys to assess current practice rather than experimental or quasi-experimental designs. It would seem reasonable that controlled experimentation could be most easily completed in this element of marketing and distributive education programming and would be a valuable tool for decision making.

Whiting and Render (1982) comprised one research team which used an experimental design in instructional research. The purpose of their study was to determine if mastery learning strategies produced successful learning experiences. Mastery learning proved effective in 80 percent of the students tested. Whiting and Render (1982, p. 29) summarized the study by stating that:

This study reinforced the concept that all can and will learn if the student knows what he is to learn, is taught in the learning style best suited to him, and is given the individualized corrections needed to alleviate previous learning failures or errors.

Research studies involving the Oklahoma instructional system have also largely been focused on student achievement. The testing, however, has been focused on specific units of instruction, not on overall occupational competence (Frazier, 1983). Those studies have focused on student achievement on unit tests which are published as a part of each unit of instruction developed by the Oklahoma Curriculum and Instructional Materials Center (Frazier, 1983).

#### Testing to Assess Occupational Competence

The National Commission (1983) encouraged comprehensive testing as a valuable means of determining the level of occupational competency achievement attained by students upon completion of training programs; and although it is common to have unplanned and disorganized testing programs in DE/Marketing programs, IDECC is the only source which currently produces tests which include all levels of marketing training in vocational programs (IDECC, 1980). The IDECC system, however, includes a random access approach into an unweighted computer test bank. This causes the reliability of the tests produced to be questionable (OOTAC, 1984).

The Oklahoma Occupational Testing Advisory Council (1984) reported that every achievement examination should be field tested to determine reliability before it is used for certification purposes, and that test items should be randomly accessed through a system which includes weighting the test by major duty areas within the occupation(s) being tested. Given these concerns over the IDECC operational design, OOTAC (1984)

encouraged systematic alternatives to the IDECC process in order to develop a more meaningful random access test bank approach for determining student competence.

The literature offered several suggestions for developing and using more effective systems for occupational achievement testing, including Wilson (1977, p. 162) who defined an achievement test as a:

...criterion-referenced appraisal of a individual's possession of knowledge and skill competencies in terms of well-defined performance requirements necessary to execute the role responsibilities of a given position.

More and more, trainers are being challenged to focus on the aspirations of individuals and match them to those job knowledge and skill competencies. Dunn and Peters (1982) believe this to be the only way to achieve cost-effective and relevant training. This hypothesis is leading many businesses and vocational programs to use testing as a means of matching individuals to appropriate training activities (Zemke, 1982). To insure that training objectives are indeed appropriate, Morris and Fitz-Gibbons (1978) indicated that four criteria should be met in evaluating all objectives used within any testing program: (1) Objectives should be clearly stated; (2) They should be verified against the program's implementation; (3) They should reflect the level of skill attainment which the program hopes to produce, and (4) All objectives which underlie the test should be high priority within the training program.

Along with information on the use of competency testing to assess worker and/or student achievement, the literature is sprinkled with articles that caution proper test construction, and problems encountered in test score interpretation. Rosenberg and Smitely (1983) indicated that there are advantages and disadvantages in using any type of test item, and that the format chosen should reflect the learning objectives

to be covered. Rosenberg and Smitely (1983) also stated that multiple-choice items, properly constructed, reduce the test taker's chances of guessing the correct answer, are relatively easy to score, and that scoring bias may be easily eliminated. Kjos (1983) reinforced the use of multiple-choice items for competency achievement testing, and indicated that unit tests in the Oklahoma instructional materials must be redesigned to be effectively utilized as comprehensive assessment instruments.

If the test instrument is to be an effective measure of student knowledge, it is essential that, not only are the items properly developed, but that they are also correctly interpreted (Coffman, 1980). Regardless of the nature of the test, Coffman (1980) warned that those interpreting test scores must take precautions to draw the correct information from the results if, indeed, the interpretation is to assist in making wise decisions for improving instruction.

Certainly, when the futures of individuals are concerned, educators must be careful to interpret test results correctly (Coffman, 1980). This can be assured only when the researcher makes "a commitment to find or construct a measure of program achievement that is not only valid and technically acceptable, but that also measures the achievement of objectives fairly" (Morris and Fitz-Gibbons, 1978, p. 28). At any rate, when good points and bad points about achievement testing are weighed, many authors including Green (1982), Rickover (1983), and Rentz (1981) agree that testing is an effective means of assessing student achievement in occupational training programs.

### Summary

The dynamic field of DE/Marketing is challenged with the task of producing technically competent individuals who are ready to take advantage of employment opportunities, and who are responsive to the ever-changing marketplace (Harris, 1983). That challenge is made even more demanding at a time when funding for programs is being reduced, and schools are becoming increasingly more concerned with budgeting (Hagemeier, 1982). American taxpayers are additionally concerned about the lack of skill students possess upon completion of their educational training programs (Sheehan, 1982) and are seeing to it that funds are directed toward programs that have proven their excellence, and away from those which are not producing (Klaurens, 1981).

A focus on excellence, therefore, is a critical goal as DE/Marketing moves into a period when only quality programs will continue (Klaurens, 1981). That focus must include instruction that reflects state-of-the-art technologies and practices (Gleason, 1983), and at the same time allow for program flexibility and creativity. It must also contain some means of assessing student achievement throughout the training program, as well as summative evaluation at the end of training to insure students are ready to leave the school environment and take their places in the work force upon graduation (National Commission, 1983).

## CHAPTER III

### METHODS AND PROCEDURES

#### Introduction

The purpose of this study was to determine if there was a difference in achievement test scores for students who were enrolled in the Business Management and Ownership level of DE/Marketing programs where the Oklahoma instructional delivery system was used instead of an independently designed instructional delivery system.

Since Business Management and Ownership is the level of DE/Marketing programs specifically directed at the mastery of skills in supervisory management and store ownership, instructional emphasis within those classes is placed upon training job-ready employees who are prepared to assume a variety of supervisory management positions in the workforce immediately upon completion of the two-year DE/Marketing program (Warner, 1984). For this reason, a competency-based approach was taken to evaluate student achievement within this study. A detailed discussion of methods and procedures follows.

#### Competency-Based Approach--The Task Analysis

To insure that a competency-based approach to evaluating student achievement was used within this study, an industry-based occupational task analysis was utilized as a basis for developing the research instrument. A total of 48 businesses participated in the task analysis

(Appendix A), which was conducted to determine the major duties and specific tasks performed by supervisory managers in a variety of retail settings. Businesses represented several segments of the retail industry, including: department stores, grocery stores, clothing and shoe stores, gift and record stores, auto parts and hardware stores, and convenience restaurants. Participating businesses were selected by convenience, and represented a large geographic and demographic area of the state of Oklahoma (Appendix A).

To gain information for the final task analysis, upon which the research instrument was based, personal interviews were conducted with incumbent supervisory managers at their places of business during the period of July, 1983 through February, 1984. The participating managers were asked to identify specific tasks performed on the job, how frequently each task was performed, and the level of importance each task played in maintaining employment. Criticality Index Worksheets (Appendix B) were used to record information obtained during the interview sessions.

During the development of the Criticality Index Worksheets, steps were taken to insure that the tasks listed encompassed those activities directly related to supervisory management positions in retail settings. Previous research efforts focusing on related competencies were reviewed. References included such items as curriculum guides, industry training manuals, educational research studies, and other commercially prepared publications.

Tasks were divided into general topical categories describing major duties performed by supervisory managers in retail stores. All tasks

were listed on the worksheets, and frequency and importance ratings were assigned number values, scaled from one to five.

Based on the information gathered during the personal interviews with incumbent managers, an index was determined for each task. That index, called the criticality index, provided a numeric reference as to the overall importance for training that each task theoretically had within the Business Management and Ownership level of DE/Marketing programs. To calculate the criticality index, importance ratings were rated two-to-one over frequency of performance.

The mean criticality index for all responses, therefore, provided information by which each task was distinguished as being critical, essential, important, desired, or not applicable. This data was presented in a task list summary, and used as a primary data base for this study. The following definitions were utilized in establishing the Supervisory Manager Task List Summary (Appendix B):

Critical--Students must be able to perform tasks prior to seeking employment as supervisory managers; little additional training will likely take place on the job. Critical tasks were considered important for training and were performed frequently on the job.

Essential--Students must have practiced the task prior to seeking employment as supervisory managers; additional training will take place on the job. Essential tasks were considered to be necessary for training and were performed rather frequently on the job.

Important--Students should receive some exposure to the task prior to seeking employment as supervisory managers, however, the task is not absolutely essential for job performance; additional training as deemed appropriate may take place after employment.



Desired--Students may receive some exposure to the task prior to seeking employment as supervisory managers, however, there is limited value for job performance. Desired tasks were considered as nice to know and were performed only seldom on the job.

Not Applicable--Students need no exposure to the task prior to seeking employment as supervisory managers in retail settings because it does not apply, or is of very little value in employment in this field. Tasks reported as not applicable were not considered important for training and were rarely performed on the job.

### Instructional Design Analysis

Information gathered through the task analysis was utilized as a basis to survey teachers on the use of instructional materials for each major unit of Business Management and Ownership classes. The Research Unit at the State Department of Vocational and Technical Education assisted in the development of the Instructional Materials Survey Form (Appendix C), which was designed for two specific purposes: (1) to identify instructional materials used in local DE/Marketing programs to teach competencies related to the Business Management and Ownership level of instruction, and therefore, primary references for test item development; and, (2) to provide information for assistance in separating programs by instructional design.

Complete instructions were mailed with the survey form (Appendix C) to all DE/Marketing programs in the state on April 26, 1984. Teachers were asked to respond with information consistent with their classroom activities. A total of 38 surveys were returned for analysis. Primary references indicated through an analysis of the survey included materials

by the Oklahoma Instructional Materials Center, Southwestern Publishing Company, Gregg-McGraw Hill, Incorporated, the Interstate Distributive Education Curriculum Consortium, and a variety of teacher-made activities.

A panel of experts was used to review the returned instructional materials survey forms, and to determine instructional design categories utilized by each DE/Marketing program which participated in this study. The primary point by which the panel determined instructional design rested upon whether programs used the Oklahoma instructional design, or other models for teaching Business Management and Ownership classes. The panel of experts, therefore, had to be knowledgeable in the Oklahoma instructional design, as well as in a variety of other methods used by DE/Marketing teachers across the state. For these reasons, the panel of experts consisted of two DE/Marketing occupational supervisors and a curriculum specialist employed by the Oklahoma State Department of Vocational and Technical Education. Based upon their personal observations in local classrooms, and the information provided through the instructional materials survey forms, each member of the panel of experts (Appendix D) separated programs into instructional design groups.

Panel members agreed that one group of programs apparently used the Oklahoma instructional design; however, other programs utilized a variety of techniques to teach Business Management and Ownership. Instructional methods utilized in those programs had little or no consistency, and were apparently designed by each teacher, independently. Programs identified as not utilizing the Oklahoma instructional system were, therefore, categorized as one, the independent design group. The Oklahoma instructional design group utilized the Oklahoma Curriculum and Instructional Materials Center materials for at least eight of the ten

major areas of instruction determined through the task analysis and students were each provided copies of the instructional materials for their personal use. Some of the independent design group programs used the Oklahoma materials to supplement instruction, but not as the primary reference for at least 80 percent of their planned instructional time in Business Management and Ownership classes. Characteristics of the teaching techniques used within the independent design group included: (1) a variety of reading materials, including textbooks and periodicals; (2) informative handouts and assignment sheets developed by the teacher and/or commercial publishing companies, other than the Oklahoma State Department of Vocational and Technical Education; (3) teacher-developed tests; and/or, (4) students were not provided with copies of the Oklahoma instructional materials for personal use.

The two instructional systems identified through the panel of experts, therefore were: (1) the Oklahoma instructional design, and (2) the independent instructional design. A final tally of responses provided by the panel of experts was used to fix instructional groups for purposes of data analysis within this study.

### Subjects

Subjects used in this study were identified as students enrolled in the Business Management and Ownership level of DE/Marketing programs in Oklahoma during the 1984 - 1985 school year. The Student Accounting Unit of the State Department of Vocational and Technical Education reported the total population of students within that category to be 672 (Agner, 1985).

To gain an appropriate sample for the study, a memorandum and accompanying Request for Tests form (Appendix E) were mailed to every DE/Marketing program in the state through the Oklahoma State Department of Vocational and Technical Education on August 24, 1984. Teachers were asked to indicate whether they would like to participate in a pretest/posttest activity for their Business Management and Ownership students.

Since the test covered those units of instruction specifically designed to train at the supervisory manager occupational level, it was recommended that the pretest be administered during September, the first month of instruction and the posttest at the end of the third quarter, during the month of March. This was particularly appropriate since the supervisory manager content of Business Management and Ownership is generally concluded by the end of the third quarter of instruction. The fourth quarter of instruction is generally devoted to business owner (entrepreneurship) occupational information (Warner, 1984).

A total of 26 schools responded with requests for pretest and posttest services during the 1984 - 1985 school year. Of those 26 DE/Marketing programs involved in the pretest, nine administered the posttest during the month of March; other schools requested later posttest dates which corresponded more appropriately with their instructional calendars. A total sample population of 96 subjects (Oklahoma design group = 62; Independent design group = 34) who completed both pretest and posttest exercises within the research period was, therefore, provided for the study. That number represented nine programs (Appendix F) and approximately 14.3 percent of the total population of students enrolled in Business Management and Ownership classes in Oklahoma during the 1984 - 1985 school year.

## Research Instrument

A researcher-developed instrument was used to gather data in this study. The instrument was based upon the task analysis of skills necessary for supervisory managers in a variety of retail settings. For purposes of this research, only tasks identified as critical or essential were used in determining tasks for item development. In total, 62 tasks were identified for inclusion in the test battery, from which a 100 item, four-choice, multiple-choice competency achievement test was developed (Appendix G).

Five test items were developed for each critical task and three were developed for each essential task. This provided a total of 256 items in the test battery. As each item was developed, it was given a two-part code identifier. The first part identified the section of the test in which the item would appear; the second part linked the item to a specific task on the task analysis. A computer was then used to randomly develop the 100 item test instrument, in which each section of the test was appropriately weighted to reflect the task analysis information. A breakdown of the number of four-choice, multiple-choice items provided in each section of the instrument used in the study is presented in Table I.

The same items were used on both pretest and posttest, although the order in which the items appeared changed between tests. In the pretest, items were scrambled throughout the instrument; however, in the posttest, items were grouped by duty areas identified through the task analysis. This grouping of items in the posttest should have allowed increased continuity of readership on the part of students taking the test, and provided ease in reporting results of the test by section. A

TABLE I  
SECTIONS OF THE TEST INSTRUMENT\*

Section of the Test	Table Abbreviations Used in Study	Number of Items
1. Store Layout and Promotion	Layout/Pro	11
2. Merchandise Control	Mdse Cont	10
3. Inventory Control	Inv Cont	10
4. Selling	Selling	11
5. Cash Control	Cash Cont	6
6. Communications	Communica	9
7. Personal Appearance and Motivation	P.Apr/Motiv	11
8. Human Relations	Human Rel	8
9. Employee Development	Emp Dev	19
10. Store Security	Store Sec	<u>5</u>
Total Number of Items		<u>100</u>

\*Each section of the test was appropriately weighted, based upon information provided in the industry-based occupational analysis for supervisory managers in a variety of retail settings. Table Abbreviations Used in Study were provided for ease in referencing specific sections of the test throughout the remainder of this report.

breakdown analysis, which indicates location of specific items on each test instrument is provided in Table II.

Tests were mailed through the Evaluation and Testing Unit of the State Department of Vocational and Technical Education, along with instructions to the teacher, and mark-sense answer sheets for use by student participants (Appendix G). To allow immediate feedback to students during the pretest phase, the answer key for the test was also mailed with the tests.

Local classroom teachers monitored both pretest and posttest activities. All pretests were administered during September, which was the first month of scheduled classes of the fall semester, 1984. Posttests were administered during the month of March, 1985, which was the end of the third quarter of instruction for the school year. Follow-up procedures utilized to encourage prompt return of answer sheets included telephone calls to local classroom teachers, and letters to those who failed to return test materials within two weeks after their scheduled test dates (Appendix H).

Upon receipt of student answer sheets, the responses provided were scored by machine at the Bureau of Tests and Measurements at Oklahoma State University. The number of correct responses provided by each student, in total and by section of the test was reported back to the appropriate teacher (Appendix H), and used as a basis for analysis in the study.

Content and logical construct validity of the research instrument were determined through a review panel of experts (Appendix I). The internal consistency of the instrument was determined through the use of a split-half reliability test. The split-half was taken between even

TABLE II  
THE RESEARCH INSTRUMENT BREAKDOWN  
BY SECTION OF TEST

Test Section	Pretest Items	Posttest Items
Layout and Promotion	9, 15, 16, 17, 18, 43, 48, 55, 58, 59, 87	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
Merchandise Control	26, 17, 37, 44, 49, 56, 57, 73, 74, 80	12, 13, 14, 15, 16, 17, 18, 19, 20, 21
Inventory Control	11, 12, 24, 36, 45, 70, 75, 84, 91, 93	22, 23, 24, 25, 26, 27, 28, 29, 30, 31
Selling	1, 29, 30, 31, 38, 46, 47, 63, 85, 89, 94	32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42
Cash Control	13, 14, 19, 28, 79, 92	43, 44, 45, 46, 47, 48
Communications	23, 53, 54, 95, 96, 97, 98, 99, 100	49, 50, 51, 52, 53, 54, 55, 56, 57
Personal Appearance and Motivation	2, 3, 5, 6, 51, 52, 61, 65, 67, 78, 90	58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68
Human Relations	4, 7, 10, 60, 64, 68, 69, 83	69, 70, 71, 72, 73, 74, 75, 76
Employee Development	8, 20, 25, 32, 33, 34, 35, 39, 40, 41, 42, 43, 62, 66, 71, 76, 77, 86, 88	77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95
Store Security	21, 22, 72, 81, 82	96, 97, 98, 99, 100



and odd numbered responses on all test returned, both pretests and post-tests, with a resulting coefficient of 0.86. That coefficient was adjusted using the Spearman-Brown prophecy formula, resulting in a corrected reliability factor of 0.92.

Because competency-based vocational education programs are more interested in whether students have learned necessary skills and knowledges to become employable upon completion of the training program, traditional questions of item difficulty and item discrimination were not as critical as that of content validity and reliability of the test instrument (OOTAC, 1984). An item analysis was conducted, however, on the responses provided by students in the posttest exercise to provide an additional indicator of the nature of the test. Principle areas examined in the item analysis included: (1) mean item difficulty; (2) mean item discrimination; and, (3) distribution of responses by item.

The item analysis revealed that the mean item difficulty was lower (49.08) than that recommended by the Bureau of Tests and Measurements (1985) (64.00). This indicated that more of the test items, overall, were considered hard to answer. No indication was provided through item analysis to suggest that items were bad items, but rather that they were difficult for students to answer. Content validation activities conducted prior to test administration indicated that the items were appropriate for the supervisory manager level of training in Business Management and Ownership classes.

The Bureau of Tests and Measurements at Oklahoma State University (1985) recommended an item discrimination of 0.29 for the posttest. The mean discriminating power of items on the research instrument was 0.24. To determine the mean discrimination of test items, students were divided

into two groups, higher scores and lower scores. The actual index resulted when 62 percent and 38 percent of the students in the upper and lower groups of students, respectively, responded correctly to a given item.

Although a part of analysis in both item difficulty and item discrimination, a closer examination of the distribution of responses by item was conducted to determine if students responded as though there were more than one apparent correct choice provided in any given item. Analysis indicated that distractors were apparently effective in leading students who did not know the correct response away from selecting key answers. This was shown through a rather consistent spread of responses over the four choices provided in more difficult items.

### Research Design

The research design utilized in the study was the nonequivalent control group design. According to Gay (1976), this design is very similar to the pretest/posttest control group design. The primary difference is that the nonequivalent design does not involve random assignment of subjects to groups. Although the lack of randomization complicated problems associated with internal validity, those problems were diminished by using similar groups throughout the study. Also, by using preestablished classes, possible effects of reactive arrangements were minimized.

The Statistical Package for the Social Sciences (SPSS) was used to analyze the data. One-way, pairwise t-tests were run to analyze pretest and posttest data to determine if there were statistically significant differences in scores over time. In addition, two-way t-tests were run

to determine if there were differences in scores for students taught within the Oklahoma instructional design group and those taught within the independent design group. Whereas the one-way t-tests allowed assessment of change in scores over time, the two-way t-tests allowed comparison to determine if use of one instructional design actually produced higher scores than the other.

One-way comparisons were run to determine if a statistically significant difference existed between total pretest and posttest scores. In addition, total scores obtained by students taught under the Oklahoma instructional design, and total scores reported for students in the independent instructional design group were also analyzed for change over time. In the same manner, pretest and posttest scores for each section of the test, in total and by instructional design, were analyzed through use of pairwise t-tests.

A series of two-way t-tests were run to determine if there were significant differences between scores by instructional design. The first analysis examined the differences in total scores obtained by students under both designs. Following the total score analysis, two-way t-tests were used to examine differences in scores for each section of the test by type of instructional design.

## CHAPTER IV

### RESULTS AND DISCUSSION

#### Introduction

The purpose of this study was to determine if there was a difference between competency achievement test scores for students who were enrolled in the Business Management and Ownership level of DE/Marketing programs where the Oklahoma instructional system was used, instead of independent instructional design delivery systems. The null hypothesis, that there was no significant difference between competency achievement test scores for students completing their second year of retail supervisory management training in the DE/Marketing program under the Oklahoma instructional system and for students completing their second year of retail supervisory management training within the independent instructional design group, was used as the statistical hypothesis for this study. The analyses of data and findings are discussed in this chapter.

#### Competency Test Scores - Analyses

##### Among All Students

##### Analyses of Pretest and Posttest Scores

The first research question asked: Was there a significant difference between total pretest and posttest scores among all students used in the study. A one-way t-test was run between pretest and posttest

total scores, among all students (Table III). The analysis indicated that a statistically significant difference did exist between pretest (46.70) and posttest scores (49.43) among all students tested; and that posttest scores, overall, were significantly higher than their corresponding pretest scores.

TABLE III  
ONE-WAY t-TEST ANALYSIS OF PRETEST AND POSTTEST  
SCORES AMONG ALL STUDENTS  
N=96

Variable	Mean	
Pretest	46.70	t-value = 2.01
Posttest	49.43	p = .024*

\*Significant at .05

To determine where the difference was located, a one-way t-test was used to analyze pretest and posttest data by section of the test. In eight of the ten sections of the test a significant change in scores took place between the pretest and posttest (Table IV). Posttest scores were higher for sections of the test related to Layout and Promotion (from 4.90 to 6.78), Merchandise Control (from 4.05 to 5.03), Inventory Control (from 3.73 to 4.11), Selling (from 5.76 to 6.86), Communications (from 3.41 to 3.75), and Personal Appearance and Motivation (from 5.82 to 6.59). In section eight and section nine, however, pretest scores were significantly higher than posttest scores. Learning apparently decreased over time among all students tested in the areas of Human Relations and

Employee Development where scores decreased from 4.04 and 3.60, and from 9.81 and 7.85, respectively.

TABLE IV  
ONE-WAY t-TEST ANALYSIS OF PRETEST AND POSTTEST  
SCORES BY SECTION OF THE TEST  
AMONG ALL STUDENTS  
N=96

Variable	Number Possible	Time ( $\bar{x}$ )		t-value	p
		<u>Pretest</u>	<u>Posttest</u>		
1. Layout/Pro	11	4.90	6.78	7.76	.000*
2. Mdse Cont	10	4.05	5.03	4.06	.000*
3. Inv Cont	10	3.73	4.11	1.92	.029*
4. Selling	11	5.76	6.86	4.33	.000*
5. Cash Cont	6	2.78	2.56	1.39	.083
6. Communica	9	3.41	3.75	1.81	.037*
7. P.Apr/Motiv	11	5.82	6.59	2.53	.006*
8. Human Rel	8	4.04	3.60	1.84	.035*
9. Emp Dev	19	9.81	7.85	4.48	.000*
10. Store Sec	5	2.36	2.26	0.60	.275

\*Significant at .05

Analyses of Change in Scores Between  
Instructional Design

Data analyses for the second research question--Was there a difference in mean scores over time, between students taught under the Oklahoma instructional design and for those taught under independent designs.--appears in Table V and Table VI. A statistically significant difference in scores between instructional design was found within the pretest scores (Oklahoma = 49.77; Independent = 41.09); however, no difference was found within the posttest scores between instructional designs (Table V).

TABLE V  
 TWO-WAY t-TEST ANALYSIS OF PRETEST AND POSTTEST  
 SCORES BETWEEN INSTRUCTIONAL DESIGN GROUPS

Variable	Instructional Design ( $\bar{x}$ )		t-value	p
	Oklahoma n=62	Independent n=34		
Pretest	49.77	41.09	3.31	.001*
Posttest	49.18	49.18	.25	.800

\*Significant at .05

Although there was no significant difference in posttest scores by instructional design (Table V), it was previously determined (Table III

and Table IV) that there was a statistically significant difference in scores over time among all students tested.

To help explain the situation, a two-way t-test was performed to analyze the change in pretest and posttest scores by section of the test, between instructional design. Results of that analysis are shown in Table VI.

TABLE VI  
TWO-WAY t-TEST ANALYSIS OF THE CHANGE IN PRETEST  
AND POSTTEST SECTION SCORES BETWEEN  
INSTRUCTIONAL DESIGN GROUPS  
N=96

Variable	Number Possible	Difference ( $\bar{x}$ )		t-value	p
		<u>Oklahoma</u> n=62	<u>Independent</u> n=34		
1. Layout/Pro	11	1.29	2.97	3.50	.001*
2. Mdse Cont	10	4.05	2.53	4.98	.000*
3. Inv Cont	10	-0.02	1.12	2.79	.006*
4. Selling	11	0.39	2.41	3.70	.001*
5. Cash Cont	6	-0.18	-0.29	0.35	.724
6. Communica	9	0.32	0.38	0.15	.881
7. P.Apr/Motiv	11	0.63	1.03	0.53	.532
8. Human Rel	8	-0.84	0.29	2.33	.022*
9. Emp Dev	19	-2.21	-1.50	0.77	.441
10. Store Sec	5	-0.10	-0.12	0.06	.954

\*Significant at .05



The data provided information which indicated that the mean change in scores for students taught under the independent design group was significantly higher in five sections of the test, including 50 items in the following areas; Layout and Promotion, Merchandise Control, Inventory control, Selling, and Human Relations. In the remaining five sections of the test, no significant difference in mean change of scores existed between instructional design. In addition, it was noted that of the five sections showing no difference between design, three of those sections of the test (Cash Control, Employee Development, and Store Security) reflected negative gains in mean scores between pretest and posttest for both instructional design groups.

#### Competency Test Scores - Analyses Within Instructional Design Groups

##### Analyses of Pretest and Posttest Total Scores

A third point of inquiry asked the research question: Was there a change in scores over time between administration of the pretest and posttest among students taught under either instructional design. To answer this question, a series of three one-way t-tests were used to analyze the data within each instructional design group. The difference in mean totals for pretest and posttest scores obtained by students within the Oklahoma design group and the independent design group, respectively, are reflected in Table VII and Table VIII.

While there was no change in scores for students taught under the Oklahoma design (Table VII), a statistically significant change was found within the independent design group (Table VIII). The mean posttest

score (49.88) for the independent design was 8.79 percent higher than the mean pretest score (41.09).

TABLE VII  
ONE-WAY t-TEST ANALYSIS OF CHANGE IN TOTAL SCORE  
BETWEEN PRETEST AND POSTTEST  
- OKLAHOMA DESIGN  
N=62

Variable	Mean	
Pretest	49.77	t-value = 0.39
Posttest	49.18	p = .350

TABLE VIII  
ONE-WAY t-TEST ANALYSIS OF CHANGE IN TOTAL  
SCORE BETWEEN PRETEST AND POSTTEST  
- INDEPENDENT DESIGN  
N=34

Variable	Mean	
Pretest	41.09	t-value = 3.83
Posttest	49.88	p = .000*

\*Significant at .05

### Analyses of Pretest and Posttest Section Scores

An examination of the mean scores by section of the test provided information regarding the amount of change produced over time within each instructional design group. Data analysis indicated that a change in scores did take place for students taught under the Oklahoma design in three sections of the test, including: Layout and Promotion, Human Relations, and Employee Development (Table IX).

TABLE IX  
ONE-WAY t-TEST ANALYSIS OF SECTION MEAN  
SCORES BETWEEN PRETEST AND POSTTEST  
- OKLAHOMA DESIGN  
N=62

Variable	Number Possible	Time ( $\bar{x}$ )		t-value	p
		<u>Pretest</u>	<u>Posttest</u>		
1. Layout/Pro	11	5.31	6.60	4.52	.000*
2. Mdse Cont	10	4.45	4.58	0.56	.290
3. Inv Cont	10	3.84	3.82	0.07	.473
4. Selling	11	6.27	6.66	1.55	.064
5. Cash Cont	6	2.90	2.73	0.84	.203
6. Communica	9	3.47	3.79	1.36	.090
7. P.Apr/Motiv	11	5.97	6.60	1.52	.067
8. Human Rel	8	4.40	3.56	2.87	.003*
9. Emp Dev	19	10.61	8.40	4.01	.000*
10. Store Sec	5	2.53	2.43	0.45	.328

\*Significant at .05

Although the change in mean scores for section one, Layout and Promotion, represented a significant increase (5.31 to 6.60), that was not the case in section eight and section nine--Human Relations and Employee Development. In those sections of the test, there were significant negative gains in scores between pretest and posttest means (4.40 to 3.56 and 10.61 to 8.40, respectively).

Analysis of difference in section mean scores for students taught under the independent design showed significant differences in six sections of the test (Table X). In five of those sections, significant increases in posttest scores were realized (Section one--4.15 to 7.12; Section two--3.32 to 5.85; Section three--3.53 to 4.65; Section four--4.82 to 7.23; and, Section seven--5.56 to 6.59). Section nine, which covers tasks under the Employee Development duty area, however experienced a negative gain in score (8.35 to 6.85).

#### Summary

A significant difference was found between pretest and posttest scores among all students; however, mean total scores for students in both instructional design groups was less than 50 percent. Closer analyses also revealed that no significant gains were made by students within the Oklahoma model. Students taught under the independent group, however, demonstrated significant gains between pretest and posttest scores. Analyses of the sections of the test over time revealed that both models realized negative gains in employee development, a section that represented 19 percent of the test. Also, the students in the independent design group realized significant gains in several more areas than did students taught under the Oklahoma design.

TABLE X  
ONE-WAY t-TEST ANALYSIS OF SECTION MEAN  
SCORES BETWEEN PRETEST AND POSTTEST  
- INDEPENDENT DESIGN  
N=34

Variable	Number Possible	Time ( $\bar{x}$ )		t-value	p
		<u>Pretest</u>	<u>Posttest</u>		
1. Layout/Pro	11	4.15	7.12	7.70	.000*
2. Mdse Cont	10	3.32	5.85	5.98	.000*
3. Inv Cont	10	3.53	4.65	3.29	.001*
4. Selling	11	4.82	7.23	4.95	.000*
5. Cash Cont	6	2.55	2.26	1.33	.096
6. Communica	9	3.29	3.68	1.19	.122*
7. P.Apr/Motiv	11	5.56	6.59	2.50	.009*
8. Human Rel	8	3.38	3.68	0.77	.225*
9. Emp Dev	19	8.35	6.85	2.07	.023*
10. Store Sec	5	2.06	1.94	0.40	.346

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\*Significant at .05

## CHAPTER V

### SUMMARY, FINDINGS AND CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

This study was conducted to determine if there was a difference between competency achievement test scores for students who were enrolled in DE/Marketing programs where the Oklahoma instructional design model was implemented, and where other instructional systems were used. The null hypothesis provided the research base from which all data were analyzed to answer inquiries posed through three research questions:

1. Was there a difference between pretest and posttest scores among all students used in the study?
2. Was there a difference in scores over time between students taught under the Oklahoma instructional design, and for those taught under independent instructional designs?
3. Was there a change in scores over time between administration of the pretest and posttest among students taught under either instructional design?

The nonequivalent control group research design was utilized throughout the study, and subjects represented a sample of 14.4 percent of the total population of senior high school students enrolled in the Business Management and Ownership classes across the state of Oklahoma during the 1984 - 1985 school year. Students were assigned to

instructional design groups following analysis of instructional design used in their respective programs, by means of preestablished groups.

The researcher developed instrument used was a 100-item, four-choice, multiple choice competency achievement test covering tasks performed by retail supervisory managers. Correct responses indicated on mark sense answer sheets provided the data for the study. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data through the Oklahoma State University computer system. One-way t-tests were used to analyze the data to determine if there was a change in scores over time between the administration of the pretest and posttest instruments; two-way t-tests were utilized to determine if there was a difference in scores between instructional design groups.

### Findings and Conclusions

Findings related to the first research question indicate that there was a significant change in scores between the pretest and posttest among all students. Students apparently increased in knowledge of skills pertaining to store layout and promotion, merchandise control, inventory control, selling, communications, and personal appearance; yet there was a decrease in ability to correctly respond to items related to human relations and employee development tasks. Since the combined total of these two sections represent 27 percent of the total test, it would appear that there is a problem in training to mastery of these skill areas among students enrolled in the Business Management and Ownership level of all DE/Marketing programs across the State of Oklahoma during the 1984 - 1985 school year.

When data was analyzed to determine if use of either instructional design produced higher scores, no significant difference was found between groups. The change in scores over time by section of the test, however, indicated that the independent instructional design produced higher scores in sections of the test related to layout and promotion, merchandise control, inventory control, selling, and human relations.

When data was analyzed for change over time within each instructional design, it was noted that there was no significant difference for students taught under the Oklahoma design. Change in total score over time within the independent design group, however, did show significant improvement. Under closer analysis, by section of the test, both instructional design groups produced higher mean scores in layout and promotion; both produced lower mean scores in employee development. Whereas the Oklahoma design group experienced decreased scores in an additional section of the test, human relations, the independent design group showed increases in four additional areas: merchandise control, inventory control, selling, personal appearance, and motivation. It appears that students of the independent group are learning more in these areas than are students being trained under the Oklahoma instructional design model.

#### Recommendations

Based on the analysis of data presented throughout this report, several recommendations have surfaced. Recommendations for duplication of this study, as well as related research, are presented for further investigation of this topic.



1. Further research should be conducted in a similar manner for all occupations trained within DE/Marketing programs in Oklahoma. This would allow local school administrators and teachers to make improved decisions on selection of instructional materials for use in local programs.

2. The study should be replicated in other vocational programs in Oklahoma.

3. A similar study should be conducted in other states where materials from the Oklahoma Curriculum and Instructional Materials Center are being used.

4. Tests should be administered in industrial settings with incumbent workers to determine cutoff scores. A correlation of achievement test scores should be run with supervisor ratings of employees taking the test.

5. To insure test security, a new test should be randomly accessed prior to beginning of each new study.

6. To encourage prompt return of student answer sheets, test keys should not be mailed during either phase of similar or replicated studies.

7. Because the employee development duty area represented the greatest number of critical and essential tasks performed by supervisory managers in a variety of retail setting, and given the fact that change in scores for the employee development section of the test in both instructional design groups realized negative gains in scores over time, it appears that additional time should be spend and/or improved teaching techniques implemented for training to mastery of these skills in all Business Management and Ownership classes.

8. Additional analyses, involving the change of rank experienced by students within each instructional design group, should be presented in future research projects of this nature. This information may provide closer insight as to the elements affecting change in score by certain groups of students. For instance, if the top one-third of all students trained under any given design experience decreases in scores over time, and the middle third increases, while the lower third remains unchanged, there might be an indication that the programs are not competency-based by design. Therefore, evaluation of student achievement through the use of a competency-based test may be inappropriate.

9. One final recommendation for further study is that a longitudinal study be conducted to determine the correlation between posttest scores obtained in high school on a competency achievement test over retail supervisory manager skills and employee performance evaluation reports one, two, and three years following graduation from the DE/Marketing program.

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## APPENDIXES

APPENDIX A

BUSINESSES WHICH PARTICIPATED

IN TASK ANALYSIS

APPENDIX A

BUSINESSES WHICH PARTICIPATED  
IN TASK ANALYSIS

A total of 48 businesses participated in the task analysis, which was used as the basis upon which the research instrument was developed. Businesses represented several segments of the retail industry, including: department stores, grocery stores, clothing and shoe stores, gift and record stores, auto parts and hardware stores, and convenience restaurants. Participating businesses were selected by convenience, and represent a large geographic and demographic area of the state of Oklahoma.

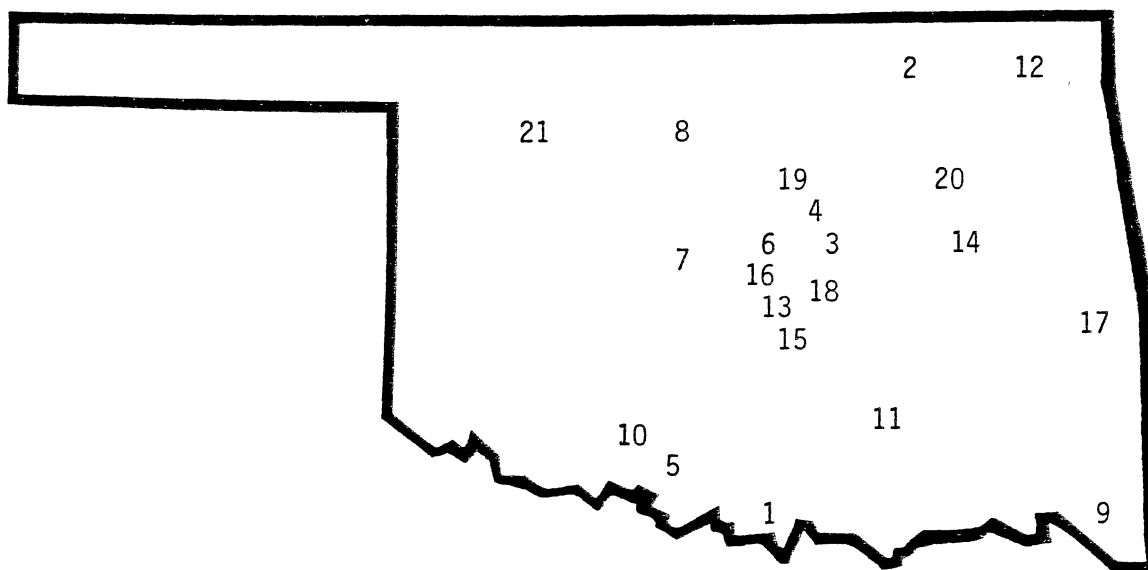
A list of businesses which participated in the task analysis follows in this Appendix. Also, a map is provided for reference for those readers unfamiliar with the location of cities and towns across Oklahoma.



BUSINESSES WHICH PARTICIPATED  
IN TASK ANALYSIS

Business	Location(s)
Arbys Restaurant	Tulsa
Belk Department Store	Miami
BestYet Food Store	Tulsa
C.R. Anthony's	Enid, Lawton, Moore, Oklahoma City, Stillwater
Cris Crafts	Edmond
Davis Paint Store	Shawnee
Foodworld	Oklahoma City
Froug's Department Store	Tulsa
Greenlight Auto Store	Tulsa
Handy Dan Hardware	Tulsa
Hobby Lobby	Stillwater, Tulsa
Lerner's Clothing	Norman, Oklahoma City, Tulsa
K-Mart	Ardmore, Enid, Lawton
McCartney's Food Store	Oklahoma City
McDonald's Restaurant	Cushing, Edmond, ElReno, Bartlesville
Montgomery Ward	Duncan
Oliver's Shoes, Inc.	Woodward
Ray's Family Clothing	Tulsa
Sears	Enid, Tulsa
Service Merchandise	Oklahoma City
Smith's Grocery	Tulsa
Sound Warehouse	Tulsa
T. G. & Y.	Ardmore, Edmond, Oklahoma City, Stillwater
VanBuren Grocery	Idabel
Walmart	Bartlesville, ElReno, McAlester, Muskogee, Poteau
Ward's Grocery	Chandler

BUSINESS WHICH PARTICIPATED  
IN TASK ANALYSIS --  
LOCATION OF BUSINESSES



- |                 |                   |
|-----------------|-------------------|
| 1. Ardmore      | 12. Miami         |
| 2. Bartlesville | 13. Moore         |
| 3. Chandler     | 14. Muskogee      |
| 4. Cushing      | 15. Norman        |
| 5. Duncan       | 16. Oklahoma City |
| 6. Edmond       | 17. Poteau        |
| 7. El Reno      | 18. Shawnee       |
| 8. Enid         | 19. Stillwater    |
| 9. Idabel       | 20. Tulsa         |
| 10. Lawton      | 21. Woodward      |
| 11. McAlester   |                   |

## APPENDIX B

### RESULTS OF THE TASK ANALYSIS

## APPENDIX B

### RESULTS OF THE TASK ANALYSIS

Task analysis survey forms were personally administered to 48 incumbent supervisory managers. Each task was reported as being critical, essential, important, desired, or not applicable. For purposes of this study, only tasks identified as critical or essential were used in determining tasks for item development. In total, 62 tasks were identified for inclusion on the research instrument. Five items were developed for each critical task and three were developed for each essential task. This allowed for a total test battery on supervisory management of 256 items.

A copy of the criticality worksheet and task list summary follow. Only those tasks reported as being critical or essential were coded for inclusion in the test battery.

## CRITICALITY INDEX WORKSHEET

## CRITICALITY INDEX WORKSHEET

[illegible]

## SUPERVISORY MANAGEMENT TASK LIST SUMMARY

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
COMMUNICATIONS SKILLS					
Use legible handwriting in preparing forms, messages, and records.			X		
A-1. Listen attentively to directions, assignments, and information from customers, supervisors, or managers.	X				
A-2. Communicate verbally with customers, employees, supervisors, suppliers, etc.	X				
Communicate verbally with groups including firm personnel, civic organizations, etc.			X		
A-3. Read reports, forms, policies, product information, etc.	X				
A-4. Compose and complete correspondence, reports, forms, and notes.		X			
Perform mathematical computations applicable to marketing functions in this occupational area.			X		
A-5. Utilize information from tables, graphs, and charts such as tax tables, work schedules, organization charts, etc.		X			
Use the telephone correctly and courteously.			X		
Use calculating equipment to perform mathematical computations.			X		
Convert American standard measurements to metric measurements.				X	
Interpret computer output such as printouts, visual display screens, etc.			X		

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T A P P L I
PERSONAL APPEARANCE AND MOTIVATION					
B-1. Demonstrate good work habits such as punctuality, orderliness, and patience.	X				
B-2. Demonstrate effective work habits by planning and scheduling work tasks and assignments (time management).	X				
B-3. Maintain appearance and health	X				
B-4. Demonstrate appropriate ethics such as integrity and honesty.	X				
Adjust and adapt to new and unique ideas and situations.			X		
Convey a positive image of self and the firm.			X		
Assume responsibility for individual actions and/or department and company operations.			X		
B-5. Accept constructive criticism and take appropriate corrective action.	X				
Maintain necessary endurance, forbearance, and persistence in order to accomplish goals and objectives.			X		
Display appropriate sense of humor.			X		
Budget time effectively by managing leisure, work, and home affairs in ways that enable individual goals to be achieved.			X		
B-6. Use success or failure constructively in a work situation.	X				
B-7. Be dependable in the work environment.	X				

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
HUMAN RELATIONS					
C-1. Work cooperatively with other employees, supervisors, and/or managers.	X				
C-2. Serve customers courteously to represent the firm favorably.	X				
Treat others as individuals.			X		
C-3. Work cooperatively with other persons outside the firm such as suppliers, advertisers, community representatives, etc.					
Utilize appropriate assertiveness when working with other employees, managers, and customers.			X		
Understand the needs, desires, and goals of individuals with varying social and cultural backgrounds.			X		
C-4. Demonstrate initiative in dealing with customers, other employees, and managers.	X				
C-5. Apply appropriate leadership style such as directive, participative, or combination thereof to motivate others.	X				
Demonstrate sensitivity to the needs of individuals.			X		
Demonstrate an understanding that success or failure depends not alone on technical proficiency but on quality of inter-personal relations as well.			X		
C-6. Establish and maintain credibility with customers, co-workers, employees, and managers.	X				
Adjust to demands of job requirements such as deadlines, pressures, conflicts, etc.			X		
Reinforce positive behavior and provide constructive criticism.			X		



DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
ECONOMIC PRINCIPLES/CONCEPTS					
Contributions of profit and the profit motive to the economy, business, and the individual.				X	
Relationships to profit and the profit motive to to sales volume, price determination, costs (fixed and variable), and breakeven points.			X		
Influence of competition of product, price, promotion, and distribution goals.			X		
Relationship of supply and demand and influence on marketing functions (e.g. buying, selling, sales promotion, etc.				X	
Characteristics of the free enterprise system such as individual investment opportunities, motivations, and rewards.				X	
Effects of recession and/or inflation on production, sales, and employment.				X	
Role of capital and investment in planning and control for business organizations.				X	
Influence of labor and labor organizations on the economy, business, and the individual.			X		
Nature of credit and its influence on the economy, business, and the individual.			X		
Effects of taxation on the economy, business, and the individual.				X	
Effects of laws, regulations, and agencies of governments on business organizations.			X		
Role of risk management including insurance protection for business organization.				X	
Influence of automation and/or specialization on the economy, business, and the individual.			X	X	
Influence of financial institutions such as federal reserve system and commercial financial institutions (banks, savings and loans, credit unions, etc.) on the availability of credit and supply of money.				X	
Characteristics of capitalism, socialism, and communism as they affect the economy.				X	
Characteristics of various competitive structures such as pure and imperfect competition, oligopolies, duopolies, and monopolies.				X	
Effects of the consumerism movement upon the economy, business and the individual.				X	
The contributions of the "value-added by marketing" concept to the economy, business and the individual.				X	
Influence of allocations of natural resources on on the economy, business, and the individual.				X	

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
EMPLOYEE DEVELOPMENT					
Determine job classifications, qualifications and/or number of individuals needed for various positions.			X		
Write job descriptions, specifications, etc.			X		
Recruit employees in accordance with labor laws and affirmative action policies.			X		
D-1. Interview prospective employees.		X			
D-2. Select individuals for various positions based upon recommendations, qualifications, experience, etc.		X			
Obtain necessary information such as health clearances, tax data, social security number, and insurance data.			X		
Comply with federal and state employment laws such as child labor, civil rights, wage and salary, etc.			X		
D-3. Explain benefits to employees such as social security, health care, pension plans, etc.		X			
D-4. Train employees concerning job responsibilities duties, policies, and procedures, systems, trends, products, and terminology.	X				
Select appropriate training aids and references material.			X		
D-5. Conduct meetings.		X			
Attend training sessions sponsored by suppliers, trade associations, firms, etc.			X		
Plan goals and objectives for specific jobs.				X	
Plan job responsibilities for employees and assign authority.				X	
Establish criteria and procedures for evaluating employees.				X	
D-6. Schedule employee work hours.	X				
D-7. Assign work to employees.	X				
D-8. Supervise work of employees.	X				
D-9. Build employee morale, motivative, and loyalty.	X				
D-10. Provide constructive criticism, positive reinforcement, and show appreciation to employees where and when appropriate.		X			
D-11. Evaluate employees' performance according to firm policies and procedures.		X			
D-12. Handle employee complaints and grievances in a fair and effective manner.	X				
Maintain relations with employee organizations such as trade and professional unions.				X	

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
STORE SECURITY					
Determine equipment needs.			X		
Select new or replacement equipment.			X		
Select site location for facilities.				X	
Determine insurance needs for fire, liability, theft, etc.				X	
Establish policies and procedures for company security.					X
E-1. Comply with established procedures for handling shoplifting, customer fraudulence, especially as stated in OSHA.	X				
E-2. Follow appropriate procedures if there are employee or customer accidents.		X			
E-3. Administer a maintenance and housekeeping program.		X			
Administer overall budget.					X
Analyze projected budget with the actual budget				X	
Perform necessary budget banking functions such as depositing funds, signing checks, etc.				X	
Interpret financial reports and records.				X	
Administer wage, salary, and incentive plan.				X	
Assume responsibility for compliance with laws regarding taxes and payroll.				X	
Obtain necessary financing.				X	
Manage legal matters such as negotiating rental or leasing contracts, franchise agreements, ordinance compliance, etc.				X	
Manage credit policies and procedures.				X	
Promote firm through participation in professional and civic organization.				X	
Keep informed of trends and developments in the industry.			X		

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
STORE LAYOUT AND PROMOTION					
F-1. Plan layout to provide for appropriate and adequate space for work areas and merchandise.	X				
F-2. Determine whether and when to use displays.	X				
Coordinate local advertising with chain, regional, or national advertising.					
Develop catalogs, price lists, etc.				X	
Consult with appropriate persons and collect appropriate information prior to preparing advertising copy.				X	
Design advertisement, copy, and layout for various printed media.				X	
Proof advertisements for corrections, deletions and additions.			X		
Develop advertisements for radio and/or television.				X	
F-3. Plan location of displays considering logical groupings, maximum customer exposure, present and anticipated sales volume, and firm layout.	X				
Obtain information and materials for displays from suppliers.			X		
F-4. Select appropriate display fixtures, materials, and background.		X			
Design displays considering the basic elements of display arrangement using the principles of color, harmony, balance, and proportion.			X		
F-5. Evaluate Interior displays.		X			
Develop point-of-sale signs and banners.			X		
Prepare merchandise for display.			X		
Maintain sales appearance of displays by re-arranging or replacing merchandise sold from displays.			X		
F-6. Coordinate displays with advertised features.	X				
F-7. Inform employees of the prices, uses, brands of items featured in the advertisement.		X			
Post current ads in heavy traffic areas.			X		
Highlight advertised items on shelves and displays.			X		
Inform customers of advertised merchandise.			X		
Evaluate effectiveness of advertising program in terms of objectives and increased sales.			X		
Evaluate effectiveness of specific advertisements.			X		

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
STORE LAYOUT AND PROMOTION (Cont.)					
Evaluate the effectiveness of displays by analyzing sales results with regard to the purposes of the display.			X		
Obtain supplier representatives' assistance and evaluation in terms of present display arrangements and display innovations and trends.				X	
Evaluate special promotion.			X		
Consider the uses and purposes of promotion such as arousing consumer desire for products/merchandise, preselling merchandise, increasing sales, building customer goodwill, and promoting the image of the company.			X		
Determine target market.			X		
Determine promotional objectives.				X	
Plan promotional campaign, strategies, etc.				X	
Plan promotional schedule such as advertising and/or display schedule.			X		
Determine when to use promotional and institutional advertising.			X		
Make comparison shoppings of competitors' merchandise and analyze competitor's promotional activities and prices.			X		
Determine costs of promotion for various media and methods, such as advertising, display, special promotions, etc.				X	
Prepare a sales promotion budget.				X	
Apportion sales promotion budget to various merchandise lines and/or departments.				X	
Insure that firm receives proper advertising allowance from vendors and manufactures.				X	
Select merchandise that is seasonal, timely, and in keeping with objectives of the firm.			X		
Determine the amount of merchandise needed to back up promotion.			X		
Order additional merchandise if appropriate to insure adequate stock to back up promotion.			X		
Determine appropriate media for advertisement.				X	
Determine whether and when to use special promotion such as coupons, free merchandise, etc.				X	

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T A P P L I
MERCHANDISE CONTROL					
G-1. Plan for a balanced and complete inventory by considering such factors as customer's needs and wants, competitive conditions in the market area served, current trends in sales, customer buying habits, etc.	X				
Obtain market, merchandising, product, and consumer information from suppliers.			X		
Analyze economic forecast indicators such as local employment conditions, inflation, union strikes, etc.				X	
G-2. Determine amount of inventory on hand from inventory records or actual count.		X			
G-3. Estimate customer demand based on analysis of past sales, forecast of future sales, special promotional activities, seasonal purchases for related items, etc.		X			
G-4. Determine necessary maximum and minimum quantities for basic stock and sales items to assure depth and assortment of stock.		X			
G-5. Complete appropriate ordering procedures and forms.		X			
G-6. Place orders to assure timely delivery.	X				
Follow-up on completions and delivery of orders			X		
Establish pricing policies to assure and adequate gross margin.				X	
Establish the markup for each product or product line.				X	
Determine the timing of price reductions and the percentage of markdown.				X	
Mark and change prices on merchandise.			X		
Operate ticketing machine, stampers, scales, automatic wrapping machines, and other pricing equipment.			X		

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
INVENTORY CONTROL					
Establish an Inventory control system.			X		
H-1. Conduct periodic stock counts.		X			
Maintain inventory control records.			X		
H-2. Analyze records to detect stock shortages and overages.		X			
Establish receiving schedules.				X	
Determine priority for processing merchandise received.				X	
Unload trucks or other transportation methods.				X	
Check merchandise for completeness of order and damage.				X	
Complete receiving records such as freight tickets, receiving records, and invoices.				X	
Follow through on non-delivered or lost merchandise.			X		
Follow correct procedures in handling defective or damaged merchandise, incorrect amounts, and merchandise returns.				X	
Store merchandise in appropriate manner after receiving.			X		
H-3. Determine best location for stock considering shelf and floor space, customer flow patterns and available fixtures.		X			
H-4. Stock merchandise in appropriate place and appropriate manner considering moving older merchandise in front, keeping shelves filled, facing merchandise to front, and maintaining a good appearance of the products.	X				
H-5. Maintain stock control records.		X			
Sort merchandise by department, size, and grade if appropriate.			X		
Prepare merchandise for stocking such as assembling materials.				X	
Code or date stock.			X		
H-6. Report low or out-of-stock conditions.	X				

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T A P P L I
SELLING					
I-1. Represent the firm favorably to customers by showing courtesy, responding to inquiries in a friendly manner, etc.	X				
Greet all customers in accordance with firm policy.			X		
Open sale in appropriate manner.			X		
Identify prospective new customers.			X		
Open new accounts.				X	
Establish a schedule for visiting customers.				X	
Maintain a customer list for mailing.			X		
I-2. Help customers define and understand their needs, wants, and problems.		X			
I-3. Determine merchandise which is of interest to customer.		X			
Ask pertinent questions to define more clearly the nature of customer interest.			X		
Recognize when customers prefer to examine merchandise with or without assistance.			X		
I-4. Inform customers of the use of products.		X			
Inform customers of the various size available.			X		
Explain to customers protective measures such as standards and grades.			X		
Inform customers of the various styles.			X		
Compare prices and price lines for customers.			X		
Inform customers of various colors available.			X		
Inform customers of brand names.			X		
Inform customers of expected useful life.			X		
Inform customers of manufacturing process.				X	
Inform customers of product materials.			X		
Instruct customers in how to care, handle, maintain, and repair merchandise.			X		
Show customers the advantages of packaging methods.				X	
I-5. Suggest substitute items to customers.		X			
I-6. Suggest related items to customers.		X			
Inform customers of product trends and innovations.				X	
Provide sources of product information.				X	
Explain guarantees and warranties to customers.			X		



DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T  A P P L I
SELLING (Cont.)					
I-7. Respond to customer questions and complaints in an effective manner and in accordance with company policy.	X				
Inform customers of service provided by the firm.			X		
Inform customers of locations of merchandise.			X		
Work with more than one customer simultaneously in a courteous manner.			X		
Great all customers in accordance with company policy.					X
Operate cash register in accordance with company policy.			X		
Determine price for all items not pre-priced.			X		
Determine amount of sales tax and which items are taxable.			X		

DUTY AREA	C R I T I C A L	E S S E N T I A L	I M P O R T A N T	D E S I R E D	N O T A P P L I
CASH CONTROL					
Make change for customer.			X		
Bag or wrap merchandise for customer.			X		
J-1. Process checks received in accordance with firm's policies.	X				
J-2. Make refunds for items such as coupon redemption and returned merchandise.	X				
Handle lay-away sales.			X		
Secure necessary customer credit information such as obtaining credit references, status of of customer's account, credit limits, etc.				X	
Interpret credit policies to customers.				X	
Process credit purchases such as firm accounts, Bank Americard, Master Charge, etc.			X		
Prepare sales slips.			X		
J-3. Balance cash drawer against register reading and complete appropriate forms for register close-out.		X			
Handle back-orders in accordance with company policy.				X	
Solicit display areas in customer's store.				X	
Provide customer merchandising consultative service.				X	
Service merchandise for customers.				X	
Take orders in person or on the phone including catalog sales.				X	
J-4. Analyze reasons for return of merchandise and take corrective action.	X				
Follow legislation regarding the sales of certain products.				X	

APPENDIX C

INSTRUCTIONAL MATERIALS SURVEY FORM

## APPENDIX C

### INSTRUCTIONAL MATERIALS SURVEY FORM

Instructional Materials Survey forms were mailed to selected vocational teachers, including every DE/Marketing teacher in Oklahoma in April 1984. The Research Unit at the State Department of Vocational and Technical Education assisted in the development of the instrument, which was designed for two specific purposes: (1) to identify instructional materials used in local DE/Marketing programs to teach competencies related to the Business Management and Ownership level of instruction, and, therefore, primary references for test item development; and, (2) to provide information for assistance in separating programs by instructional design. Thirty-eight forms were returned for analysis. A copy for the memorandum and form are presented on the following page.

# INSTRUCTIONAL MATERIALS SURVEY AND MEMORANDUM



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE., • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

## MEMORANDUM

TO: Teachers of Selected Programs

FROM: Barbara J. Lyon, Testing Specialist *BJL*

DATE: April 26, 1984

SUBJECT: Instructional Materials Survey

The Testing Section of the State Department of Vocational and Technical Education has been given the responsibility to develop and validate test items for use at the local program level. Through use of the state developed test batteries, teachers will be able to select appropriate test items for use throughout the school year. This should save teachers a great deal of time and will give both teachers and administrators a means of reviewing curriculum and time-on-task activities. Also, through the use of these test batteries, students may be provided with some indication of their strengths and weaknesses as they leave the vocational training program and seek employment in the business community. The design of the testing system is to improve vocational education across Oklahoma. It is not an easy process, and it is not possible to accomplish our task without your support.

In an effort to develop valid test items, we have been working closely with area school administrators and local vocational directors to identify teachers who will write test items for our priority program areas this summer. Your program is one of those which has been selected. It is for this reason that we would like to have you complete the enclosed Survey of Instructional Materials.

Information gathered on this survey is of utmost importance, as test item writers will be required to reference each item developed. Since we hope the tests will be used by teachers across the state, we would like to insure that references being used in our classrooms are also used in developing our test items.

EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

# INSTRUCTIONAL MATERIALS SURVEY AND MEMORANDUM (CONTINUED)

Teachers of Selected Programs  
April 26, 1984  
Page 2

Here are a few basic instructions for filling out the survey form:

1. Complete the general information section by writing in your school and your name.
2. In the left-hand column, write in the titles, etc. for each of the primary references you used to teach various job related activities. Primary references are those used most often to teach various topics. Do Not list general references which are available in your classroom, but rarely used. (NOTE: Refer to the enclosed task analysis for specific information related to various job/duties which have been identified by the Research Unit. Tasks listed serve as the basis for developing test items.)
3. Identify the jobs/duties that are covered by each of the references listed by placing an "X" in the appropriate blanks under each job/duty area listed. (NOTE: Place an "X" in the space next to "I" if the reference is used for classroom information; "A" if the reference is used for assignments; and/or "T" if it is used for testing students. IT IS POSSIBLE THAT ALL THREE, I, A, AND T, WILL BE CHECKED FOR ANY OR ALL REFERENCES LISTED.)

## EXAMPLE:

Program: <u>Carpentry</u>	Ma									
School: <u>Anywhere AVTS</u>										
Location: <u>Wenowhere, OK</u>										
Teacher: <u>John Doe</u>										
	Pre-Employment	Safety	Related Information	Blueprint Reading	Site Layout	Forming	Floor and Sill Framing	Wall and Partition Framing	Roof Framing	
Resource Used	Use	Use	Use	Use	Use	Use	Use	Use	Use	
Title: <u>Commercial Carpentry</u>	I✓	I✓	I✓	I	I	I	I✓	I	I	
Author(s): <u>Smith</u>	A✓	A✓	A✓	A✓	A	A	A	A	A	
Publisher: <u>C.M.C.</u> Yr/Ed: <u>'79</u>	T✓	T✓	T✓	T✓	T	T	T	T	T	
Title: <u>Constructing Buildings</u>	I	I	I	I✓	I✓	I✓	I	I	I✓	
Author(s): <u>Jones &amp; Rockwood</u>	A	A	A	A✓	A✓	A✓	A	A	A✓	
Publisher: <u>Southwest</u> Yr/Ed: <u>82</u>	T	T	T	T	T✓	T✓	T	T	T	

INSTRUCTIONAL MATERIALS SURVEY  
AND MEMORANDUM (CONTINUED)

Teachers of Selected Programs  
April 26, 1984  
Page 3

4. Add any additional job/duty areas that you teach which are not listed on the survey form and check the appropriate lines to indicate use for information, assignments, and/or tests.
5. Mail the completed survey form back to the State Department of Vocational and Technical Education in the enclosed business-reply envelope. (NOTE: Please mail the survey back to us on or before May 11. This will allow us time to summarize all of the information gathered and get the appropriate references to our test writers by the end of the month. In this way, we can be certain that the best references are being used as test items are developed this summer.)

THANK YOU FOR YOUR SUPPORT. THROUGH YOUR EFFORTS WE WILL BE  
ABLE TO PROVIDE EVEN MORE IN '84.

da  
Enclosures  
cc: G. Bice

## Instructional Materials Survey

Program: <u>Supervisory Management</u>	Major Instructional Areas														
School: _____	Communication Skills	Personal Appearance and Motivation	Human Relations	Economic Principles/Concepts	Employee Development	Store Security	Store Layout and Promotion	Merchandise Control	Inventory Control	Selling	Cash Control				
Location: _____	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use
Teacher: _____															
<b>Resource Used</b>	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use	Use
Title: _____	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__
Author(s): _____	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__
Publisher: _____ Yr/Ed: _____	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__
Title: _____	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__
Author(s): _____	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__
Publisher: _____ Yr/Ed: _____	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__
Title: _____	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__
Author(s): _____	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__
Publisher: _____ Yr/Ed: _____	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__
Title: _____	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__
Author(s): _____	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__
Publisher: _____ Yr/Ed: _____	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__
Title: _____	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__	I__
Author(s): _____	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__	A__
Publisher: _____ Yr/Ed: _____	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__	T__

INSTRUCTIONAL MATERIALS SURVEY  
AND MEMORANDUM (CONTINUED)



## APPENDIX D

### INSTRUCTIONAL DESIGN PANEL OF EXPERTS

## APPENDIX D

### INSTRUCTIONAL DESIGN PANEL OF EXPERTS

A panel of experts was used to determine under which instructional design category each participating DE/Marketing program should be placed. The primary point by which the panel discerned instructional design rested on whether programs used the Oklahoma Curriculum and Instructional Materials Center design, or other models for teaching Business Management and Ownership. The panel of experts, therefore, had to be knowledgeable of the Oklahoma instructional design, as well as variety of other methods used by DE/Marketing teachers across the state.

For these reasons, the panel of experts consisted of the two DE/Marketing occupational supervisors and a curriculum specialist employed by the Oklahoma State Department of Vocational and Technical Education. Based upon their personal observations and information provided through the Instructional Materials Survey forms, each member of the panel separated programs into instructional design groups. Each member of the panel agreed that one group had apparently used the Oklahoma instructional design; however, there was no apparent relation among other models. For this reason, the two instructional designs identified for use in this study were: (1) Oklahoma system, and, (2) independently designed models. A final tally of the panel's responses was used to fix instructional design groups for purposes of data analysis. The panel of experts is listed on the following page.

## INSTRUCTIONAL DESIGN PANEL OF EXPERTS

Name of Member	Area of Expertise
Bloom, Nelda	Curriculum Specialist
Foley, Bob	Assistant State Supervisor
Warner, Gene	State Supervisor

APPENDIX E

REQUEST FOR TESTS

## MEMORANDUM AND REQUEST FOR TESTS



OKLAHOMA STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

FRANCIS TUTTLE, DIRECTOR • 1515 WEST SIXTH AVE. • STILLWATER, OKLAHOMA 74074 • A.C. (405) 377-2000

## MEMORANDUM

DATE: August 23, 1984

TO: DE/Marketing Teachers

FROM: Barbara Lyon, Testing Specialist *BL*

RE: Pre-Test/Post-Test Opportunity Available

You may recall that during a meeting last year, we promised the DE/Marketing teachers across Oklahoma an opportunity to pre-test and post-test their Business Management and Ownership students with a competency based achievement test during the 1984-85 school year. That test is ready for immediate use and will be provided at no cost to your school. Similar opportunities are being provided to teachers in several programs across the state as test batteries are written and validated.

Based upon an industry analysis of tasks performed by supervisory managers in retail stores (general merchandising, fashion merchandising, food marketing, food service, hardware/building supplies, and automotive supplies), the test covers basic knowledges necessary in middle management positions. The test is a 100 item, multiple-choice instrument and will assist you in planning each student's instructional activities for this school year. Through the use of the post-test later in the spring, it will provide information which may assist you in improving your instructional plan for next year. Also, the post-test may assist students in preparing for DECA competitive events and upgrading their knowledge before graduation. We hope that you will take advantage of this opportunity to pre-test your students this fall and also to post-test sometime later in the spring semester. (NOTE: Since the test contains information for supervisory managers and not store owners, you may wish to use the post-test at the end of the third quarter before business ownership units are covered.)

To order your tests, please fill out the OOTS Request for Tests sheet and return it to our office in the business reply envelope, also enclosed, as soon as possible. We will provide a copy of the test for each student, along with answer sheets and a key for the test. Your test packet will be mailed within 24 hours of receipt of your Request for Tests. So that we may reduce printing expenses by reissuing copies of the test, and at the same time conduct appropriate reliability studies on the Retail Supervisory Manager test, we request that all materials be sent back to the State Department of Vo-Tech upon completion of test administration. Again, a business reply envelope will be provided for your convenience.

We appreciate the opportunity to serve DE/Marketing teachers and look forward to hearing from you soon. If you have any questions or other considerations that you would like to share, please do not hesitate to write or call (405)377-2000, ext. 264.

BJL:dp

Enclosures: Request for Tests  
Business Reply Envelope

cc: Gene Warner  
G. Bice

# MEMORANDUM AND REQUEST FOR TESTS (CONTINUED)

## OOTS REQUEST FOR TESTS

PROGRAM/TEST TITLE: DE/M Retail Supervisory Manager

DATE OF REQUEST: \_\_\_\_\_ SCHOOL PHONE: \_\_\_\_\_

TEACHER'S NAME: \_\_\_\_\_

SCHOOL: \_\_\_\_\_

ADDRESS (Include Zip): \_\_\_\_\_

1. Do you plan to utilize the OOTS tests for your program this year?

\_\_\_\_ Yes. Please provide all information requested below.

\_\_\_\_ No. Please skip to questions 4, 5, and 6.

2. If yes, under which plan would you like to test your students this year?

\_\_\_\_ Pre-test/Post-test

\_\_\_\_ Pre-test only

\_\_\_\_ Post-test only

3. On what date do you plan to use each test? (NOTE: We recommend pre-testing before September 15, and posttesting by March 15. Please approximate test date and number of students as best as you can at this time. Last minute changes may be made by telephone.)

Pre-test Date: \_\_\_\_\_ Number of Students: \_\_\_\_\_

Post-test Date: \_\_\_\_\_ Number of Students: \_\_\_\_\_

4. Do you provide each student a copy of the appropriate state curriculum guide each year?

Junior Year: \_\_\_\_ Yes. \_\_\_\_ No.

Senior Year: \_\_\_\_ Yes. \_\_\_\_ No.

5. Is the state curriculum guide the primary source of information used in your program?

\_\_\_\_ Yes. \_\_\_\_ No.

(If no, specify other: \_\_\_\_\_)

6. Have you ever attended an in-service meeting on testing students?

\_\_\_\_ Yes. (If yes, provide approximate date: \_\_\_\_\_)

\_\_\_\_ No. (If no, check if you would like to attend such a meeting: \_\_\_\_)

## APPENDIX E

### LIST OF PROGRAMS USED IN THE STUDY

## LIST OF PROGRAMS USED IN THE STUDY

Oklahoma Instructional Design	Independent Instructional Design
Broken Arrow High School	Tulsa Daniel Webster High School
Del City High School	Tulsa Nathan Hale High School
OKC John Marshall High School	Okla. Co. Western Heights High School
McAlester High School	
Midwest City High School	
Putnam City West High School	



APPENDIX G

THE RESEARCH INSTRUMENT

## APPENDIX G

### THE RESEARCH INSTRUMENT

The research instrument utilized in this study was a 100 item, four choice, multiple-choice objective test. Test items were developed for those tasks identified as critical or essential following a task analysis of skills used by supervisory managers in a variety of retail settings.

The same test items were used on both pretest and posttest, although the order in which the items appeared changed between tests. In the pretest items were scrambled throughout the instrument; however, in the posttest, items were grouped by duty areas identified in the task analysis. This grouping of items allowed for more continuity of thought on the part of students taking the test, and for ease in reporting results of the test by section. A breakdown analysis of each instrument follows. In addition, a copy of the posttest instrument is provided.

The tests were mailed through the Evaluation and Testing Unit of the State Department of Vocational and Technical Education, along with instructions to the teacher, and answer sheets for use by student participants. For reference, a copy of each form is located at the end of this Appendix.

## THE RESEARCH INSTRUMENT

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OCCUPATIONAL COMPETENCY ACHIEVEMENT TEST

## RETAIL SUPERVISORY MANAGER

1984 - 1985

Each of the items provided on this test is followed by four possible responses. Choose the one which best answers the question or completes the statement in each case. **WITH PENCIL ONLY**, mark your selection on your answer sheet. **DO NOT** write on this test booklet.

1. What is an advertisement which primarily contains copy and is grouped in certain sections of the newspaper by product or service offered called:
  - a. blind ad
  - b. classified ad
  - c. help wanted ad
  - d. omnibus ad
2. Advertising in which the cost is shared by the local business and the manufacturer or supplier is known as (?) advertising:
  - a. cooperative
  - b. institutional
  - c. national
  - d. promotional
3. Which would NOT be a consideration when developing a plan for changing the layout of a department:
  - a. number of displays to be changed
  - b. merchandise to be displayed
  - c. number of people needed to work on the displays
  - d. names of people who will work on the displays
4. In planning a special event display, which activity **MUST** be considered by the department manager:
  - a. develop a theme to coordinate with merchandise
  - b. hire extra personnel for putting the display together
  - c. order custom-made props and materials
  - d. install a window area for the special event

5. Sally Johnson has been asked to recommend the placement of certain items within the store in which she works. Which principle for effectively merchandising products should Sally keep in mind when making her suggestions:
  - a. to facilitate customer movement, place carts and standing displays to the left of the front doors
  - b. to have customers walk through the entire store, place related merchandise at least two departments away from each other
  - c. to have maximum space for displaying merchandise, make the aisles wide enough for one shopping cart to move through the area
  - d. to improve the quality of color retention in products, install warm white fluorescent lights throughout the store
  
6. Which of the following principles is used in creating effective window displays:
  - a. emphasize merchandise line, shape, size, texture, weight, and color with background material
  - b. pinpoint large items of merchandise and/or sections of the display with large, high intensity colors
  - c. use decorative props to physically support or hold merchandise being displayed
  - d. display items that are not selling to help clear the merchandise from the selling floor
  
7. In laying out his department, David Moore would like to allow a lot of merchandise to be displayed in as little space as possible. To do this David ordered several standard fixtures which will adapt easily to the building structure and design. Which type of layout arrangement is David using:
  - a. combination
  - b. free flow
  - c. gridiron
  - d. open
  
8. Several techniques are used in promoting business in a retail store. Which of the following is an example of a public relations activity:
  - a. contract to run daily ads during a morning radio show
  - b. expand the store's floor space
  - c. participate in community organizations
  - d. put up a billboard near a major intersection
  
9. The ultimate goal of advertising is to:
  - a. introduce new product lines
  - b. sell goods and/or service
  - c. coerce customers into the store
  - d. motivate employees

10. What is the intangible, salable asset representing the reputation of the business and its relationship with its customers known as:
  - a. dedication
  - b. goodwill
  - c. grapevine
  - d. feedback
  
11. What are displays used to show merchandise near related items, at the ends of aisles, and near the check-out stands called:
  - a. free form displays
  - b. institutional displays
  - c. point-of-purchase displays
  - d. suspension displays
  
12. Which merchandise policy has little affect on a store's image:
  - a. management style practiced
  - b. manufacturers' brands carried
  - c. merchandise quality
  - d. price of merchandise carried
  
13. Fashion accessories that are adapted to the appropriate times or occasion are said to be:
  - a. timely
  - b. tasteful
  - c. seasonal
  - d. glamorous
  
14. What is merchandise sold at a reduced price, or even at a loss, in order to attract customers into the store known as:
  - a. appeal
  - b. draw
  - c. leader
  - d. sale

CONTINUE.....

15. Jesse Roberts is responsible for ordering merchandise to keep the health and beauty aids department properly stocked. Jesse reviewed the department's current stock and the merchandise plan for the next month and found the following information.
- Planned sales for the month - \$6,000
  - Desired stock at the end of the month - \$3,000
  - Merchandise in stock at the present time - \$2,000
  - Merchandise on order at the present time - \$500
- What amount does Jesse have available as open-to-buy for next month:
- a. \$ 5,500
  - b. \$ 6,500
  - c. \$ 9,500
  - d. \$11,500
16. If an invoice is dated July 2, and has terms of 4/10, 60X, what is the final date the cash discount may be taken:
- a. July 6
  - b. July 16
  - c. September 10
  - d. September 14
17. The average inventory of merchandise for a six-month period was \$20,000. If net sales for the same period were \$50,000, what is the turnover rate for the period:
- a. 0.4
  - b. 2.5
  - c. 10.0
  - d. 30.0
18. During the month of December, the sale of a specific item of merchandise is projected to be \$1,500. The value of the beginning of the month inventory is \$6,000. What is the sales-to-stock ratio for this item:
- a. .25:1
  - b. 1:4
  - c. 4:1
  - d. 6:1.5
19. What is pricing merchandise in terms of quantities of more than one unit, such as 3 for \$5.00, known as:
- a. activity counting
  - b. multiple pricing
  - c. point-of-sale pricing
  - d. special pricing

20. Needle-craft merchandise is usually priced as a percentage of markup on cost at a rate of 33%-50%. When items are marked down, however, the markdown advertised is reflected on the selling price, NOT the cost. If an item cost the store \$5.00 and has a markup on cost of 50%, and later is placed on sale at 10% off retail, what is the new selling price of the item:
- a. \$2.25
  - b. \$4.50
  - c. \$6.75
  - d. \$9.00
21. What is the number of times during a given period that the average amount of stock on hand is sold and replaced:
- a. gross margin
  - b. open-to-buy
  - c. sales-stock ratio
  - d. turnover
22. In which area would reserve stock of apparel items be found in most stores:
- a. forward reserve area
  - b. reserve stock area
  - c. under-the-counter area
  - d. warehouse reserve area
23. Refer to the following shipment of merchandise to answer the question below.
- Men's clothing - slacks, shirts, sweaters  
Boy's clothing - slacks, jeans, shirts, sweaters
- How should the shipment of merchandise be separated before stocking it in the store:
- a. separate the men's from the boy's items
  - b. separate all items by color
  - c. separate on racks by items
  - d. separate in boxes by department, size, color, and style
24. What is the type of inventory control system that requires an actual count of all merchandise on hand called:
- a. periodical
  - b. perpetual
  - c. physical
  - d. retail

25. What is the maximum amount of any item that should be ordered from a vendor called:
- a. order amount
  - b. order ceiling
  - c. order point
  - d. order quantity
26. The point at which the inventory of an item is depleted is called the:
- a. order point
  - b. safety stock
  - c. stock count
  - d. stockout
27. What is the formula for calculating the extension on an inventory form:
- a. price plus quantity
  - b. price minus quantity
  - c. price times quantity
  - d. price divided by quantity
28. Which form is completed as the first step for processing merchandise received by a retail store:
- a. purchase order
  - b. receiving report
  - c. shipping report
  - d. stock requisition
29. If vendors find there is an insufficient quantity of an item on hand to fill an order, what will they usually do:
- a. cancel the order
  - b. fill part of the order
  - c. send the order back
  - d. substitute similar items
30. Where should the new stock be placed as it is replenished:
- a. behind or beneath the present stock
  - b. beside the present stock
  - c. in front of the present stock
  - d. on top of the present stock



31. Which type of physical inventory control system is used when buyers figure the entire inventory for a given period by counting portions of stock at regular intervals:
- a. reorder
  - b. tickler
  - c. unit
  - d. visual
32. What is the most profitable sales approach to use when a customer is looking at the merchandise while it is still on the rack or shelf:
- a. acknowledgement approach
  - b. merchandise approach
  - c. premium approach
  - d. service approach
33. Which statement BEST defines the term "buying motives":
- a. when people buy
  - b. where people buy
  - c. why people buy
  - d. how people buy
34. When showing more than one item to a customer, what should the salesperson do when the customer indicates a lack of interest in one of the items:
- a. a salesperson should never show more than one item
  - b. emphasize the benefits of that item
  - c. remove it from the rest of the items
  - d. set it by the one the customer is interested in
35. What should you do if you are the only salesperson on the sales floor and a customer asks for a particular size of dress that you do **not** have on the sales floor, but do have in the backroom:
- a. ask the customer to wait and go find her size
  - b. show the customer a different style that is the right size
  - c. suggest that the customer go to another store
  - d. tell the customer to come back later when its not so busy
36. A group of similar types of products that are closely related because they satisfy a class of customer needs, are used together, or are sold to the same customer groups is called a:
- a. product analysis
  - b. product item
  - c. product line
  - d. product mix

37. Rates charged for the delivery of parcel post items depend on:
- a. weight and distance
  - b. time and distance
  - c. weight and cost
  - d. size and cost
38. Which practice should be used in a good sales presentation:
- a. tell customers just enough to get them to buy
  - b. familiarize customers with the feature and the benefits of the product
  - c. let the customers ask for information when you run out of things to say
  - d. let the customers control the sales presentation; demonstrate the item only if the customers ask
39. Anyone who uses products and/or services is known as a:
- a. buyer
  - b. consumer
  - c. customer
  - d. dealer
40. Why should sales personnel study merchandise information found on tags, labels, wrappers, and pamphlets:
- a. to locate the merchandise in stock
  - b. to answer customer objections about the merchandise
  - c. to identify items that are selling the fastest
  - d. to determine whether the item is likely to be marked down
41. Involving the customer during the selling process adds realism and facilitates learning about the product. What are four principles of learning used when customers are involved in the selling process:
- a. association, insight, participation, transfer
  - b. auditory, oral, touch, visual
  - c. memory, perception, productivity, selectivity
  - d. attention, insight, participation, selectivity
42. In which step of the selling process does the salesperson show how a specific product is used:
- a. approach
  - b. presentation
  - c. reassurance
  - d. suggestion selling stage

43. Which financial statement is used by businesses as an instrument to keep track of cash flow activities over a six-month period:
- a. balance sheet
  - b. cash flow worksheet
  - c. proof of cash report
  - d. sales and expense forecast
44. Which activity is an effective way to guard the store's cash against burglary:
- a. place safe in front of the store
  - b. install a fire-resistant safe
  - c. make few bank deposits
  - d. encourage use of wheels on the safe
45. The type of credit account in which the customer pays a pre-established amount every month and may continue to purchase merchandise on credit up to a pre-determined maximum amount is called a(n):
- a. aging account
  - b. installment account
  - c. regular 30-day account
  - d. revolving account
46. The carbon-set form on which credit sales transactions are recorded is called a:
- a. credit voucher draft
  - b. deposit ticket
  - c. sales draft
  - d. sales draft summary card
47. Which of the following principles is used by businesses to safeguard cash and to maintain accurate recordkeeping:
- a. cash outlays should be made by check and only on written authorization
  - b. cash receipts should be collected daily and deposited in the bank on a weekly basis
  - c. bookkeeping activities should be performed by the cashier so the same person who counts the cash also records the information
  - d. when collecting cash from the cash register, the cashier should use a money bag or other device so that cashiers know he/she is authorized to remove cash from their drawers

48. What is a signature placed on the back of a check by the person cashing the check called:

- a. back signature
- b. endorsement
- c. payer
- d. validation

49. Which photograph illustrates a positive non-verbal communication technique:

a.



b.



c.



d.



50. An informal communication system, which may be helpful or harmful depending upon how it is used, and that exists in all organizations is called:

- a. empathy
- b. feedback
- c. grapevine
- d. relay network

CONTINUE...

51. Which statement is a good example of wording for a business letter:
- a. thank you for your check for \$81.20
  - b. I cannot advise you as to when the contract will be ready
  - c. I trust my suggestion will be satisfactory
  - d. please advise this department of the action that you intend to take on this matter in the near future
52. If a letter is written with a complimentary close of "Sincerely yours," what degree of formality is shown:
- a. very formal; distinguished
  - b. formal; common business language
  - c. somewhat formal; satisfactory in most business cases
  - d. informal; should not be used in business letters
53. Which statement describes a basic characteristic of a memorandum:
- a. should include a signature when sent to a group
  - b. should include the address, salutation, and complimentary close
  - c. should be initialed before sending to individuals
  - d. should use a two-part heading, consisting of To and From
54. Which practice is BEST to use when listening to someone speak:
- a. openly question the speaker's accuracy and source
  - b. say something every time the speaker pauses
  - c. try not to anticipate what points the speaker is trying to make
  - d. occasionally volunteer to summarize what has been said
55. Jason McDonald is the manager of his store's camera and jewelry department. He has noticed that a new employee appears to be having problems understanding what is being discussed during on-the-job training activities. Which communication technique might help to improve Jason's ability to communicate with the new employee:
- a. use questions to find out what the new employee already knows about the activity being presented
  - b. use technical terms, abbreviations, and acronyms to impress the new employee and to help acquaint him/her with new terms
  - c. use many gestures to get the point across to the new employee
  - d. use common slang terms to let the new employee know that business communications should not be any different than that used in casual conversations

56. Placing oneself in another person's position in order to better understand the other person's feelings or ideas is called:
- a. empathy
  - b. mimicing
  - c. pantomime
  - d. transactional analysis
57. Recognizing the worth of self and the worth of other people, their property, and their opinions is called:
- a. courtesy
  - b. human relations
  - c. respect
  - d. self-confidence
58. What is the basic human relations principle guiding one's ability to see what is right from what is wrong, and what is good from what is bad:
- a. enthusiasm
  - b. ethics
  - c. deliberation
  - d. participation
59. Which of the following BEST describes the reason for developing personal goals and action plans:
- a. managers need practice writing things down
  - b. personal action plans are required by upper management
  - c. goals cannot be achieved without personal action plans
  - d. personal action plans help to achieve goals which are planned out
60. What is a personal characteristic which is demonstrated by a desire to learn, as well as being an eager and earnest worker:
- a. enthusiasm
  - b. initiative
  - c. loyalty
  - d. sociability
61. What is a personal characteristic through which others are motivated to cooperate in achieving the company's goals:
- a. confidence
  - b. initiative
  - c. leadership
  - d. tact

62. Making progress toward achieving a worthy goal is known as:
- a. ambition
  - b. enthusiasm
  - c. fortitude
  - d. self-concept
63. Which of the following BEST defines the term "job enrichment":
- a. process of relaying information up and/or down the formal organizational channels of a business
  - b. rotation of an employee through several work areas so as to vary tasks performed to reduce boredom on the job
  - c. involvement of employees in decision-making throughout the organization and operations of a company
  - d. degree to which management meets with employees to discuss terms of employment and grievance procedures
64. What are all of the physical, mental, and emotional characteristics that make up a whole person called:
- a. attitude
  - b. human relations
  - c. personality
  - d. self-concept
65. For which reason should employees be willing to work to the best of their abilities:
- a. to avoid punishment
  - b. to get extra time off work
  - c. to intimidate other employees
  - d. to take pride in work accomplished
66. Which description is considered an example of good business appearance:
- a. beards worn by men
  - b. jeans worn by employees
  - c. moderate makeup used by women
  - d. open-toed sandals worn by employees
67. Which level within Maslow's hierarchy of needs is associated with the individual's desire to be recognized for his/her accomplishments:
- a. affection needs
  - b. esteem needs
  - c. physiological needs
  - d. self-fulfillment needs

68. An employee asked for an adjustment in his work schedule to attend a special school event. A co-worker offered to trade work schedules to allow the employee to attend the event. Which human relations skill was **not** illustrated by the co-worker in this situation:
- a. assertiveness
  - b. initiative
  - c. cooperation
  - d. leadership
69. The position or rank of a person as it compares with the position or rank of another is called:
- a. authority
  - b. empathy
  - c. respect
  - d. status
70. Which of the following **BEST** describes the role of a supervisor in his/her relationship with subordinates:
- a. boss
  - b. enforcer
  - c. guide
  - d. recordkeeper
71. Which description is a characteristic of a good solution to a business problem:
- a. solution is acted upon and not changed as it is put into practice
  - b. solution will limit production capabilities
  - c. solution is inconsistent with company policies
  - d. solution is in line with company's objectives
72. Which of the following activities promotes enthusiasm in others:
- a. self-consciousness
  - b. indifference
  - c. pretending
  - d. sincerity

CONTINUE...



73. Lee Smith manages a small business. Lee believes that employees should be assigned work based on their capabilities and that employees at all levels should enthusiastically work to accomplish the goals of the company and its workers. Which management style does Lee practice:
- a. autocratic, theory x
  - b. participative, theory x
  - c. free rein, theory y
  - d. participative, theory z
74. The manager of a small retail store called a meeting of all employees to discuss a shoplifting problem that had been getting worse in recent weeks. The manager directed employees to wait on customers promptly and to be more alert. This directive on shoplifting prevention would be considered:
- a. external, negative
  - b. external, positive
  - c. internal, negative
  - d. internal, positive
75. Which type of manager spends most of the time planning for long-range company activities:
- a. administrative
  - b. executive
  - c. participative
  - d. supervisory
76. Good human relations can come about from good work practices. Which of the following describes a characteristic of good supervision:
- a. procrastinate when reports are due
  - b. practice irritating mannerisms
  - c. establish a controversial image in the community
  - d. understand subordinates' job completely
77. Which of the following is an example of modern technique of motivation:
- a. provide access to resources needed to make tasks less frustrating and more easily performed by employees
  - b. maintain rigid practices when providing benefits and making decisions
  - c. insure that work methods, work stations, products and/or services are planned only by management
  - d. increase productivity by confining employees to specific work areas and conditions

78. What is a formal consultation used to evaluate the aptitude, training, or progress of a prospective employee called:
- a. agency
  - b. discipline
  - c. interview
  - d. review
79. Which guideline should be followed in establishing a climate of positive discipline:
- a. avoid telling employees the consequences of breaking company rules
  - b. establish an appeals board, made up of managers only, to let employees voice their opinions on important issues
  - c. tell employees to find copies of the rules and standards for THE company when errors are made
  - d. recognize good performance, reliability, loyalty and total teamwork efforts
80. Which activity is considered to be an effective method for following up a job interview:
- a. arrange a second interview with the most qualified applicants
  - b. check references on all applications to be sure applicants interviewed deserve the job
  - c. hire the best applicant; do not contact other applicants unless they call to find out if the position has been filled
  - d. wait several days before making a final decision; this will allow time to re-examine each application
81. The right to make decisions with regard to employees' duty assignments and methods of accomplishing work in order to achieve the goals of the company is called:
- a. authority
  - b. management-by-objectives
  - c. responsibility
  - d. standard
82. Which activity is included under the management function associated with structuring relationships between people and the work to be done within the facilities provided:
- a. departmentalizing operations
  - b. evaluating merchandise plans
  - c. forecasting sales
  - d. motivating employees

83. Combining resources of the firm to work in harmony toward common goals is known as:
- a. job enlargement
  - b. job enrichment
  - c. coordination
  - d. goodwill
84. Which of the following is NOT a good method of handling grievances:
- a. get help in making decisions
  - b. listen to all sides of the problem
  - c. make decisions alone
  - d. provide opportunities for employees to express problems
85. Which of the following is the BEST method of improving morale with employees who express dislike for routine work which is generally repetitive and not challenging:
- a. create a recreational program for employees
  - b. allow employees to voice their opinions when setting company policies
  - c. create a new retirement program
  - d. give employees raises to make them more satisfied with their work
86. If Danny Rodregez worked 44 hours last week at \$5.00 per hour, and his employer deducts \$70.00 for withholding taxes and FICA, what is the amount of **gross** wage that Danny should receive:
- a. \$150
  - b. \$160
  - c. \$220
  - d. \$230
87. Which of the benefits provided by Ajax Stores is required by federal labor laws:
- a. time and one-half over eight hours worked in a day
  - b. workers' compensation
  - c. religious holiday leave
  - d. sick leave

CONTINUE...

88. As shift manager Tracy Jones must interview applicants for a position vacated by a student who left to attend college. Which activity should Tracy consider in planning to conduct the interview:
- a. try to anticipate everything that can possibly happen and decide how to react to each situation
  - b. do not anticipate questions by the applicants; few, if any, questions will probably be asked
  - c. read over all applications and resumes submitted by applicants before beginning the interviews
  - d. plan personal questions about the applicants; they are more effective in evaluating the applicants than are job-related questions
89. Management is consistently looking for employees who can show creative ideas. Which of the following is an example of creativity in business practice:
- a. asking for increased benefits
  - b. asking for additional wages
  - c. asking to attend a special training session
  - d. asking to improve the air quality in the store
90. Paying employees a percentage of their sales as wages is called a:
- a. bonus
  - b. commission
  - c. quota
  - d. straight-time wage
91. Who is responsible for seeing that the equipment and facilities in a department are in safe operating order and/or responsible for reporting unsafe working conditions:
- a. department manager
  - b. safety supervisor
  - c. store manager
  - d. every employee
92. A primary purpose of conducting store meetings is to:
- a. punish employees for breaking company rules
  - b. prepare financial statements
  - c. provide current information about the store
  - d. provide entertainment

93. The management function which deals with managers' time spent in structuring relationships between people, the work to be done, and the facilities available in order to achieve the goals of the company is known as the (?) function:
- a. controlling
  - b. leading
  - c. organizing
  - d. planning
94. The type of leader who believes that employees will seek better ways of accomplishing the company's objectives, and who gives employees directions only as requested for assistance is called:
- a. autocratic
  - b. free-rein
  - c. independent
  - d. participatory
95. What are the two most important ethical principles to follow when dealing with a customer:
- a. friendliness and devotion
  - b. honesty and fairness
  - c. respect and appreciation
  - d. trust and honesty
96. Which activity is a common signal given by shoplifters:
- a. they move smoothly across the department and the store
  - b. they look more at the merchandise than at the area around the department
  - c. they look for attentive clerks by moving merchandise from one section of the store to another
  - d. they tend to hit the area quickly and leave the store as soon as they can get out
97. When writing a training outline for a class on robbery, the department manager should remember to include several important practices. Which rule should be stressed during the training session:
- a. cover areas touched by robbers with paper until police arrive
  - b. lock the store's doors to keep the robbers inside
  - c. try to remember as many characteristics about the robbers as possible, but be sure not to write the information down
  - d. use force as necessary to fight with the robbers and restrain them until the police arrive

98. When customers steal merchandise from the selling floor, it is known as:
- a. burglary
  - b. internal theft
  - c. robbery
  - d. shoplifting
99. What is the proper term for any unexplained reduction in the value of a store's inventory:
- a. asset
  - b. expense
  - c. shortage
  - d. shrinkage
100. Retail stores are often targets of shoplifting activities. When interviewing a shoplifter, what should the manager do:
- a. accept payment for merchandise taken and drop any charges filed
  - b. not let the police take the merchandise
  - c. not use threats or make promises
  - d. take the merchandise back to the department

THE RESEARCH INSTRUMENT  
KEY TO POSTTEST

1. c	26. b	51. a	76. c
2. c	27. c	52. c	77. b
3. a	28. b	53. c	78. d
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6. c	31. c	56. a	81. d
7. d	32. b	57. a	82. d
8. c	33. d	58. d	83. a
9. b	34. a	59. a	84. d
10. d	35. d	60. d	85. b
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17. c	42. a	67. c	92. a
18. c	43. a	68. b	93. a
19. a	44. c	69. d	94. b
20. a	45. a	70. a	95. a
21. a	46. a	71. d	96. b
22. c	47. b	72. c	96. c
23. a	48. c	73. b	98. d
24. c	49. c	74. b	99. a
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## MARK SENSE ANSWER SHEET

NCS Trans Optic M801 1e063 321

SIDE 1

**GENERAL PURPOSE — NCS — ANSWER SHEET**

FOR PROCESSING BY OKLAHOMA STATE UNIVERSITY — Bureau of Tests and Measurements

**EXAMPLE**

- WRONG  
1 ☐ A ☒ B ☐ C ☐ D ☐ E
- WRONG  
2 ☐ A ☒ B ☐ C ☐ D ☐ E
- WRONG  
3 ☐ A ☒ B ☐ C ☐ D ☐ E
- RIGHT  
4 ☐ A ☐ B ☒ C ☐ D ☐ E

**IMPORTANT DIRECTIONS FOR MARKING ANSWERS**

Use black lead pencil only (#2 or softer)  
Make heavy black marks that fill the circle completely  
Erase clearly any answer you wish to change  
Make no stray marks on this answer sheet.



← REFER TO THESE EXAMPLES BEFORE STARTING PRACTICE EXERCISES

- 1 ☐ A ☐ B ☐ C ☐ D ☐ E
- 2 ☐ A ☐ B ☐ C ☐ D ☐ E
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## INSTRUCTION SHEET - FRONT

Student information goes on the back of this form. Be sure to have each student provide LAST NAME, FIRST NAME, MI, and code in the PID number given on the back.

NCS Trans Ootic MB01 16063 321

SIDE 1

## GENERAL PURPOSE — NCS — ANSWER SHEET

FOR PROCESSING BY OKLAHOMA STATE UNIVERSITY — Bureau of Tests and Measurements

**EXAMPLE**

WRONG

1 ☒ A ☐ B ☐ C ☐ D ☐ E

WRONG

2 ☐ A ☒ B ☐ C ☐ D ☐ E

WRONG

3 ☐ A ☐ B ☒ C ☐ D ☐ E

RIGHT

4 ☐ A ☐ B ☐ C ☒ D ☐ E

**WRONG ANSWERS**

← REFER TO THESE EXAMPLES BEFORE STARTING PRACTICE EXERCISES

All answers go on this side of the answer sheet.

Students should check answer sheet number against test item number for accuracy in marking the answer sheet. (Remind students to mark the correct answer. He only use A, B, C and D.)

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10 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	20 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	30 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	40 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	50 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	60 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E
61 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	71 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	81 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	91 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	101 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	111 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E
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67 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	77 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	87 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	97 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	107 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	117 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E
68 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	78 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	88 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	98 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	108 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	118 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E
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70 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	80 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	90 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	100 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	110 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E	120 <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E

## INSTRUCTION SHEET - BACK

**SIDE 2**

COURSE NUMBER		SEC	STUDENT ID	PD Number
				20560
00	00	00	00	00
01	01	01	01	01
02	02	02	02	02
03	03	03	03	03
04	04	04	04	04
05	05	05	05	05
06	06	06	06	06
07	07	07	07	07
08	08	08	08	08
09	09	09	09	09
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
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51	51	51	51	51
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91	91	91	91	91
92	92	92	92	92
93	93	93	93	93
94	94	94	94	94
95	95	95	95	95
96	96	96	96	96
97	97	97	97	97
98	98	98	98	98
99	99	99	99	99

Have students complete this section

121	A	B	C	D	E	131	A	B	C	D	E	141	A	B	C	D	E	151	A	B	C	D	E	161	A	B	C	D	E	171	A	B	C	D	E
122	A	B	C	D	E	132	A	B	C	D	E	142	A	B	C	D	E	152	A	B	C	D	E	162	A	B	C	D	E	172	A	B	C	D	E
123	A	B	C	D	E	133	A	B	C	D	E	143	A	B	C	D	E	153	A	B	C	D	E	163	A	B	C	D	E	173	A	B	C	D	E
124	A	B	C	D	E	134	A	B	C	D	E	144	A	B	C	D	E	154	A	B	C	D	E	164	A	B	C	D	E	174	A	B	C	D	E
125	A	B	C	D	E	135	A	B	C	D	E	145	A	B	C	D	E	155	A	B	C	D	E	165	A	B	C	D	E	175	A	B	C	D	E
126	A	B	C	D	E	136	A	B	C	D	E	146	A	B	C	D	E	156	A	B	C	D	E	166	A	B	C	D	E	176	A	B	C	D	E
127	A	B	C	D	E	137	A	B	C	D	E	147	A	B	C	D	E	157	A	B	C	D	E	167	A	B	C	D	E	177	A	B	C	D	E
128	A	B	C	D	E	138	A	B	C	D	E	148	A	B	C	D	E	158	A	B	C	D	E	168	A	B	C	D	E	178	A	B	C	D	E
129	A	B	C	D	E	139	A	B	C	D	E	149	A	B	C	D	E	159	A	B	C	D	E	169	A	B	C	D	E	179	A	B	C	D	E
130	A	B	C	D	E	140	A	B	C	D	E	150	A	B	C	D	E	160	A	B	C	D	E	170	A	B	C	D	E	180	A	B	C	D	E

Give students your PID number and ask them to code it in the blank spaces provided. Your PID number is:

**805-60**

181	A	B	C	D	E	191	A	B	C	D	E	201	A	B	C	D	E	211	A	B	C	D	E	221	A	B	C	D	E	231	A	B	C	D	E
182	A	B	C	D	E	192	A	B	C	D	E	202	A	B	C	D	E	212	A	B	C	D	E	222	A	B	C	D	E	232	A	B	C	D	E
183	A	B	C	D	E	193	A	B	C	D	E	203	A	B	C	D	E	213	A	B	C	D	E	223	A	B	C	D	E	233	A	B	C	D	E
184	A	B	C	D	E	194	A	B	C	D	E	204	A	B	C	D	E	214	A	B	C	D	E	224	A	B	C	D	E	234	A	B	C	D	E
185	A	B	C	D	E	195	A	B	C	D	E	205	A	B	C	D	E	215	A	B	C	D	E	225	A	B	C	D	E	235	A	B	C	D	E
186	A	B	C	D	E	196	A	B	C	D	E	206	A	B	C	D	E	216	A	B	C	D	E	226	A	B	C	D	E	236	A	B	C	D	E
187	A	B	C	D	E	197	A	B	C	D	E	207	A	B	C	D	E	217	A	B	C	D	E	227	A	B	C	D	E	237	A	B	C	D	E
188	A	B	C	D	E	198	A	B	C	D	E	208	A	B	C	D	E	218	A	B	C	D	E	228	A	B	C	D	E	238	A	B	C	D	E
189	A	B	C	D	E	199	A	B	C	D	E	209	A	B	C	D	E	219	A	B	C	D	E	229	A	B	C	D	E	239	A	B	C	D	

APPENDIX H  
CORRESPONDENCE

RESULTS OF TEST - SAMPLE LETTER  
AND REPORT FORM

October 9, 1984

Dear :

We have received and scored your students' answer sheets for the Retail Supervisory Manager pretest, and have compiled the information onto the enclosed summary sheet. The results of the test are presented for each student by major function of work, or duty, and are reported in raw score form. In other words, the number of correct responses for each duty is presented for your review. This information should help you as plans are made to present related materials throughout the remainder of the school year. You will notice that there appear to be some duties where group instruction may be most appropriate; however for others, individualizing instruction might be a better approach. The key is to look at each student as an individual and at your class as a whole . . . identify strengths and weaknesses . . . then plan accordingly. If you need assistance in developing appropriate delivery systems for your program, do not hesitate to contact your curriculum specialist, Nelda Bloom, or other members of the state staff. We are all here to serve you and the needs of your program.

Thank you for participating in this year's field test of the Retail Supervisory Manager test. We understand that there were a few errors on the pretest, and have taken corrective measures to insure that the posttest will be error-free. We look forward to serving you with the posttest this spring. Until then, I hope you have a wonderful school year.

Sincerely,

Barbara J. Lyon  
Testing Specialist

BJL:lw  
ms0017

Enclosure

cc: G. Pierce  
G. Warner  
N. Bloom

SEMESTER: Fall, 1984

OKLAHOMA OCCUPATIONAL TESTING SERVICE

( ) High School

Raw Scores : Pre-Test

DEM: RETAIL SUPERVISORY MANAGER

STUDENT NAME	RSM TOT (100)	LAYOUT & PROMO(11)	MDSE CONT(10)	INV CONT(10)	SELLING (11)	CASH CONT(6)	COMMUN. (9)	PERS AP & MOT.(11)	HR(8)	EMP DEV (19)	STORE SEC(5)
	57	7	5	4	6	4	4	8	6	9	4
	60	6	7	5	9	2	2	10	4	12	3
	26	4	4	3	4	1	2	1	2	4	1
	58	8	3	5	10	5	5	6	5	10	1
	45	6	5	5	3	2	3	5	2	10	4
	28	0	2	2	4	2	2	2	2	9	3
	52	6	5	4	7	2	3	5	6	11	3
	58	6	5	5	7	4	2	8	5	14	2
	67	6	7	6	8	4	5	8	7	12	4
	49	8	4	5	7	2	0	5	5	12	1
	47	4	5	2	5	3	5	5	5	10	3
	72	7	9	7	7	5	4	7	7	16	3
	36	2	2	4	4	3	4	5	1	10	1
	46	6	4	5	5	3	5	3	3	11	1
	63	7	5	7	8	4	4	7	6	13	2
	61	8	5	5	6	3	4	7	7	13	3
	71	10	7	4	9	3	6	8	7	14	3
Class Mean	52.71	5.94	4.94	4.59	6.41	3.06	3.53	5.88	4.71	11.18	2.47

RESULTS OF TEST - SAMPLE LETTER  
AND REPORT FORM (CONTINUED)

## FOLLOW-UP - SAMPLE LETTER

October 16, 1984

Dear \_\_\_\_\_:

Our records show that \_\_\_\_ Retail Supervisory Manager tests were shipped to your school last month. By this time, we expect that you have completed pretesting your students and have scored the tests for general information purposes. Since we have not yet received your return shipment of test materials, we have not been able to analyze each student's test by critical function of work. We plan to conduct such an analysis and mail a report back to your school within one week after receipt of your test materials. This will allow you to better assess strengths and weaknesses of each student and of your class as a whole. This information can be an invaluable tool for designing group and individualized instructional activities for your program.

If you have already tested your students, please return all testing materials immediately; if not, please administer the tests as soon as possible to gain the most benefit from pretesting. Your cooperation in this matter is greatly appreciated. Thank you for participating in this year's field test of the Retail Supervisory Manager test. We look forward to working with you throughout the school year.

Sincerely,

Barbara J. Lyon  
Testing Specialist

BJL:dp

cc: G. Warner  
G. Pierce

## APPENDIX I

### CONTENT VALIDITY PANEL OF EXPERTS

## APPENDIX I

### CONTENT VALIDITY PANEL OF EXPERTS

A panel of experts independently reviewed the research instrument used in this study. The panel consisted of three individuals employed in supervisory management positions in retail stores, and three staff members of the State Department of Vocational and Technical Education: two DE/Marketing occupational supervisors and one curriculum specialist.

The content validity panel of experts, listed on the following page, reviewed each test item for several points. Those points included: (1) appropriateness of subject matter to the retail supervisory manager level of instruction; (2) readability of test items; (3) weight placed upon each section of the test; (4) plausibility of distractors; and, (5) correctness of the key.



## CONTENT VALIDITY PANEL OF EXPERTS

Name of Member	Area of Expertise
Jennifer White	Assistant Manager
Joe Kelly	Department Manager
Nelda Bloome	Curriculum Specialist
Bob Foley	Asst. State Supervisor
Gene Warner	State Supervisor

## VITA

Barbara Jean Lyon

Candidate for the Degree of  
Doctor of Education

Thesis: EFFECT OF INSTRUCTIONAL DESIGN UTILIZATION ON ACHIEVEMENT  
AMONG BUSINESS MANAGEMENT AND OWNERSHIP STUDENTS IN OKLAHOMA

Major Field: Occupational and Adult Education

### Biographical:

Personal Data: Born in Detroit, Michigan, April 10, 1953, the daughter of Alvin C. and Jean Keller Lyon. Married to Robert Glen Graham on February 16, 1985.

Education: Graduated from Holton Public Schools, Holton, Michigan, in June, 1971; received Associate of Arts degree and Associate of Applied Sciences degree from Macomb County Community College in June, 1974; received Bachelor of Science degree from Western Michigan University in April, 1976; received Master of Science degree from Oklahoma State University in July, 1978; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1985.

Professional Experience: Training Director, Warren and Hadley, Incorporated, January, 1974 to August, 1974; Distributive Education/Marketing Teacher-Coordinator, Booker T. Washington High School, Tulsa Public Schools, August, 1976 to June, 1981; Curriculum Specialist, Oklahoma State Department of Vocational and Technical Education, June, 1981 to February, 1983; Testing Specialist, Oklahoma State Department of Vocational and Technical Education, February, 1983 to present.

Professional Organizations: American Vocational Association; Oklahoma Vocational Association; Oklahoma Education Association; Distributive Education Clubs of America; Distributive Education/Marketing State Advisory Council; Oklahoma Council of Local Administrators; National Guard Association of the United States.